



1995

An Alternative Theory of the Design and Construction of Drayton Hall

Robert Garrett FitzGerald
University of Pennsylvania

Follow this and additional works at: http://repository.upenn.edu/hp_theses



Part of the [Historic Preservation and Conservation Commons](#)

FitzGerald, Robert Garrett, "An Alternative Theory of the Design and Construction of Drayton Hall" (1995). *Theses (Historic Preservation)*. 475.

http://repository.upenn.edu/hp_theses/475

Copyright Note: Penn School Of Design Permits Distribution And Display Of This Student Work By University Of Pennsylvania Libraries.

Suggested Citation:

FitzGerald, Robert Garrett. (1995). *An Alternative Theory of the Design and Construction of Drayton Hall*. (Masters Thesis). University Of Pennsylvania, Philadelphia, PA.

This paper is posted at ScholarlyCommons. http://repository.upenn.edu/hp_theses/475

For more information, please contact libraryrepository@pobox.upenn.edu.

An Alternative Theory of the Design and Construction of Drayton Hall

Disciplines

Historic Preservation and Conservation

Comments

Copyright Note: Penn School Of Design Permits Distribution And Display Of This Student Work By University Of Pennsylvania Libraries.

Suggested Citation:

FitzGerald, Robert Garrett. (1995). *An Alternative Theory of the Design and Construction of Drayton Hall*. (Masters Thesis). University Of Pennsylvania, Philadelphia, PA.

NE ARTS

NA

02

1995

F553

UNIVERSITY
PENNSYLVANIA
LIBRARIES



AN ALTERNATIVE THEORY
OF THE DESIGN AND CONSTRUCTION OF DRAYTON HALL

Robert Garrett FitzGerald

A THESIS

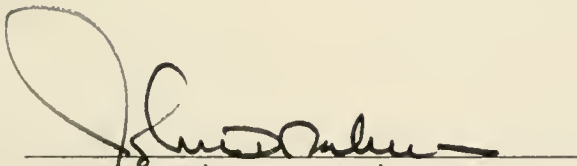
in

Historic Preservation

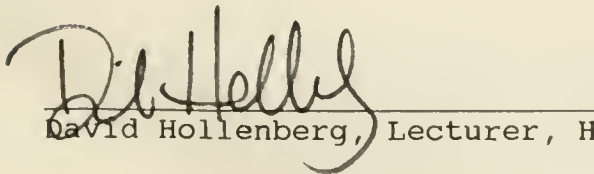
Presented to the Faculties of the University of Pennsylvania
in Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

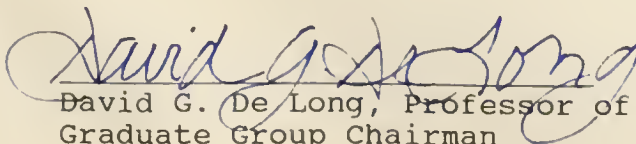
1995



John D. Milner, Adj. Assoc. Professor, Architecture, Advisor



David Hollenberg, Lecturer, Historic Preservation, Reader



David G. De Long, Professor of Architecture
Graduate Group Chairman

AN ALTERNATIVE THEORY
OF THE DESIGN AND CONSTRUCTION OF DRAYTON HALL

Robert Garrett FitzGerald

Copyright © 1995 by Robert G. FitzGerald

All rights reserved.

ACKNOWLEDGEMENTS

The author wishes to thank Dr. George McDaniel, Director, and all the staff of Drayton Hall, but particularly Meggett Lavin, Curator of Education and Research, for their help, support, and encouragement in the completion of this paper.

Ultimately, the author owes a debt of gratitude to the National Trust for Historic Preservation for sponsoring the 1991 research project on the ceiling of the great hall, in which the author was a participant and during which he first began his studies of Drayton Hall. Thanks go also to Frank Matero, professor at the University of Pennsylvania and director of that project, for drafting the author as one of the fortunate members of that team.

Finally, the author wishes to acknowledge the contributions of his esteemed colleagues Tom McGimsey and Tim Long, who endured multiple narrations of the theory presented in this thesis during the process of its refinement and whose incisive criticisms and insightful comments proved invaluable to its final completion.

TABLE OF CONTENTS

Chapter 1	Introduction: History and Significance of Drayton Hall.....1
Chapter 2	Perceptions and Mis-perceptions of Drayton Hall: the Role of Myths.....8
Chapter 3	Proposal for an Alternative History of the Design and Construction of Drayton Hall.....23
Chapter 4	Suggestions for Testing the Theory of the Design and Construction of Drayton Hall....75
	Illustrations.....76
	Bibliography.....105

LIST OF ILLUSTRATIONS

Figure 1	View of the west facade, Drayton Hall.....	77
Figure 2	Coleshill, Berkshire, 1649-62, Roger Pratt.....	78
Figure 3	Stair hall, Coleshill.....	79
Figure 4	Plan of Coleshill.....	79
Figure 5	Stair hall, Drayton Hall.....	80
Figure 6	Plan of existing ground floor, Drayton Hall.....	81
Figure 7	Plan of existing first floor, Drayton Hall.....	82
Figure 8	Plan of existing second floor, Drayton Hall.....	83
Figure 9	South wall of first-floor great hall, Drayton Hall.....	84
Figure 10	Cornice at the southeast corner of the first floor great hall, Drayton Hall.....	85
Figure 11	Existing south facade, Drayton Hall.....	86
Figure 12	South facade, Drayton Hall, positions of windows in the third bay adjusted to reflect conjectured original plan.....	86
Figure 13	West wall of Ionic drawing room, Drayton Hall.....	87
Figure 14	Wall elevations, Ionic drawing room, Drayton Hall.....	88
Figure 15	First floor plan of Drayton Hall, as built.....	89
Figure 16	Conjectured original first floor plan of	

	Drayton Hall.....	89
Figure 17	South facade of Drayton Hall, adjusted to reflect conjectured original plan.....	90
Figure 18	Wall elevations, Ionic drawing room, Drayton Hall, adjusted to reflect the conjectured original plan.....	91
Figure 19	East facade of Drayton Hall.....	92
Figure 20	William Gibbes House, Charleston, 1772-79.....	93
Figure 21	Charles Pinckney House, Charleston, 1746-48.....	94
Figure 22	Detail of south stairs to the first floor entry door, east facade of Drayton Hall, stone treads removed.....	95
Figure 23	South facade of Drayton Hall, adjusted to reflect conjectured original plan, with cupola and balustrade.....	96
Figure 24	"A Platform for a Mansion House," published by Stephen Primatt in <i>The City and Country Purchaser and Builder</i> , 1667....	97
Figure 25	View of Tuckahoe, Goochland County, Virginia, c. 1712, enlarged c. 1735.....	98
Figure 26	Plan of Tuckahoe.....	98
Figure 27	Exeter, Moncks Corner, South Carolina, c. 1712.....	99
Figure 28	Plan of Exeter.....	99
Figure 29	Facade of Mount Airy, Richmond County, Virginia, 1758.....	100
Figure 30	Plate 58 from Gibbs, <i>Book of Architecture</i> , London, 1728.....	100
Figure 31	Plan of Mount Airy.....	101
Figure 32	Plate 55 from Gibbs, <i>Book of Architecture</i> , London, 1728.....	101
Figure 33	Stratford, Westmoreland County, Virginia, c. 1725-1730.....	102

Figure 34	Plan of Stratford.....	102
Figure 35	Conjectured west facade of Drayton Hall as a one-story building.....	103
Figure 36	Plan of existing ground floor, Drayton Hall, indicating configuration of possible buried original features.....	104

1. INTRODUCTION:

HISTORY AND SIGNIFICANCE OF DRAYTON HALL

An introduction to the history of Drayton Hall and of the family that built and lived in it is presented here for the convenience of the reader not familiar with the house and its site. The author wishes to acknowledge his debt for factual information to Charles Chase and Kevin Murphy, the authors of *Drayton Hall: Architectural and Documentary Research Report*, rev., 5 December 1988. Unless otherwise stated, all historical data presented within this thesis was obtained from that very comprehensive document, hereafter called the historic structure report or HSR. Specific references to the HSR have been provided in the footnotes for various historical data to allow the interested reader to pursue a more thorough discussion than the brief synopsis presented here.

Drayton Hall is an imposing Georgian plantation house situated on the west bank of the Ashley River approximately ten miles above the old center of Charleston, S.C. (See figure 1.) It was built between 1738 and 1742 by John Drayton, a member of one of the most prominent families in South Carolina history.

Thomas Drayton (1650-1717), John Drayton's father, is

believed to have come to South Carolina from the British Island of Barbados in the year 1679, his own parents having come there from England.¹ Thomas Drayton had achieved success as a planter in South Carolina. By the time of his death, circa 1717, his estate included five plantations, among them the present-day Magnolia which borders the Drayton Hall tract to the northwest.² Thomas had four children; the last was John, who was born sometime in the years 1714 to 1716.³

On 2 March 1738 John Drayton purchased 350 acres on the east bank of the Ashley River immediately to the south of Magnolia plantation from John and Phebe Green. This land became the site of Drayton Hall.⁴ Governor John Drayton, the grandson of the builder, recorded that William Henry Drayton, his father, had been born at Drayton Hall on 20 September 1742, suggesting that the construction of the house was sufficiently advanced to allow the family to reside there.⁵

¹Charles E. Chase and Kevin Murphy, Drayton Hall: Architectural and Documentary Research Report, revised 5 December 1988, p. 14-15. [hereafter called HSR] Chase and Murphy report that Governor John Drayton, the grandson of the builder of Drayton Hall, began recording the history of his family in 1817; he placed the time of his great grandfather's arrival in South Carolina at around 1671. They observe the fact that Governor Drayton's manuscript is unfortunately short on details and documentation regarding his great grandfather's emigration to South Carolina. Later scholarship indicates that the correct date is probably 1679.

²Ibid., pp. 16-17.

³Ibid., p. 17.

⁴Ibid., p. 31.

⁵Ibid., pp. 31-32.

The year of the purchase of the property and Governor John Drayton's record of the circumstances of his father's birth are the grounds for the general acceptance of the dates 1738 and 1742 as defining the period of construction of Drayton Hall.⁶

The Drayton family played a prominent role in South Carolina history under the Crown, during the Revolution, and in the early days of the Republic. John Drayton's eldest son to survive childhood, William Henry (1742-1779), was an ardent supporter of the revolutionary cause and was elected in 1778 as a delegate to the Continental Congress in Philadelphia. His younger brother, Charles (1743-1820), was educated as a physician and received a doctorate of medicine from the University of Edinburgh in 1770. He also supported the revolutionary cause, served as Lieutenant Governor of South Carolina from 1785 to 1787, and was a delegate to the South

⁶In actuality, Drayton Hall could have been built somewhat later or over a longer period of time than these documents would suggest. At the time of John Drayton's purchase of the Drayton Hall tract in 1738 the property had been described in an advertisement as including "a very good dwelling house, kitchen, and several out houses." The HSR cites several references to the text of this notice on page 31. Though archeological investigations have identified the remains of an earlier structure, the footprint of which may have overlapped the perimeter of the present mansion house, the locations of the dwelling house and other buildings described in the advertisement are not known. Although the family may have been living on the property by the time of William Henry Drayton's birth, accounting for Governor John Drayton's recollection, they may have stayed in the now lost dwelling house or another building until a later date. The HSR offers the possibility on page 32 that the family may have been living in one of the two flanker buildings (no longer extant) while the work on the Hall itself continued.

Carolina constitutional convention. He married Hester Middleton, daughter of the acting president of the First Continental Congress of the United States and sister of one of the signers of the Declaration of Independence from South Carolina.⁷

John Drayton, the builder, died in 1779, leaving Drayton Hall to his young widow, Rebecca.⁸ In January of 1784 she transferred ownership of the house and property to Dr. Charles Drayton, her late husband's eldest surviving son at the time, William Henry having died in 1779 in Philadelphia.⁹

Charles Drayton kept detailed diaries from 1779 until his death in 1820 that document the many repairs and changes that were made at the house during his tenure there. Among those changes were the replacement of several plaster ceilings, the installation of federal mantels in two rooms, and the replacement of the house's original windows, currently believed to have taken place after a hurricane in 1813. Charles was respectful of Drayton Hall in all that he did there; his repairs and replacements have done little to alter its original character. We can thank him in large part for

⁷Chase and Murphy, pp. 21-25.

⁸John Drayton had outlived three previous wives; Rebecca was his fourth wife and many years younger than he.

⁹Chase and Murphy, pp. 21 and 23. It is family tradition that the house was left to Rebecca; the will itself is lost. Other documents suggest that she may have transferred Drayton Hall to Charles in exchange for a clear title to valuable moveable property such as household furnishings and silverware.

the wonderful survivor that Drayton Hall represents today.

After the death of Dr. Charles Drayton, the house passed through a succession of family members. Scanty documentation suggests that by the time of the Civil War, the house had ceased to function as an active family residence and had entered a state of disrepair.¹⁰

For the duration of the war and for ten years afterward the house suffered further deterioration at the hands of squatters and souvenir hunters. Images of the house in the immediate post-war period show the windows without glazing and corn growing on the lawn in front of the western portico. That the house survived the war at all is a remarkable fact considering that all of the neighboring plantation houses on the Ashley River were burned. The reason for its being spared

¹⁰Josephine Manigault, a Drayton cousin, took part in an outing to the house in October 1855. She described her visit in a four-page letter to an aunt dated 1 November 1855, a photocopy of which is available for inspection at Drayton Hall. Manigault wrote of a damaged ceiling that she had observed in the first-floor great hall, and she attributed the damage to the excessive weight of panelled partitions which had been added in the room above. She did not mention seeing any relatives in residence at the time of her visit, and her description of the house has the distinct tone of one who had never seen the house before, although she was 23 years old at the time and a native of Charleston. For a more thorough discussion of the condition of the house in this period see Beas, Marie Isabel G., FitzGerald, Robert G., Matero, Frank G., and Snodgrass, Joel C., Documentation and Conditions Survey: Great Hall Ceiling, Drayton Hall, South Carolina, unpublished, prepared by the Architectural Conservation Laboratory of the University of Pennsylvania for the National Trust for Historic Preservation, 6 December 1991, pp. 36-40.

is still a matter of historical uncertainty.¹¹

The finances of the Drayton family suffered from the collapse of the plantation economy after the war, but their fortunes rose again through the exploitation of phosphate deposits on the Drayton Hall property which could be mined for the production of fertilizer. Colonel Charles Drayton, the owner of Drayton Hall during this period, undertook a limited restoration of the house between the mid-1870s and mid-1880s, making many repairs and subtle alterations which included a new roof, replacement of the brick pediments with imbricated wood shingles, the addition of a balustrade on the second floor of the portico, and the replacement of lost or deteriorated plaster ceilings in the second floor rooms with beaded boards. The blue-gray paint that can be seen today on the panelling in most of the rooms of the house was applied during this period. Repainting may have been necessary to cover the graffiti left by visitors to the house during the years of its decline following the war.

The fact that modern utilities such as gas, electricity, and running water were not brought into the house at the time of Colonel Drayton's restoration suggests an awareness on his

¹¹Chase and Murphy, pp. 27-28 and pp. 50-51. Middleton Place and Magnolia were burned by Union troops. Legend has it that a sign was posted on the gates to Drayton Hall identifying it as a smallpox hospital. Troops fearing the contagion supposedly avoided the house. An alternate theory is that Percival Drayton, a member of the Philadelphia branch of the family and a commodore in the Union Navy stationed at Hilton Head Island, may have intervened on behalf of the ancestral home of his family.

part of Drayton Hall's historical significance and a conscious desire to maintain its integrity as an eighteenth-century building.¹²

Subsequent generations of the Drayton family maintained that tradition. The repairs that were made over the next several decades necessarily involved the loss of some original material; the manner in which those repairs were made, however, clearly reflects the intention to leave the house as it was, an attitude which can appropriately be described as advanced for the time. To ensure the survival of Drayton Hall and share their legacy with the public, the last members of the Drayton family to own the building sold it to the National Trust for Historic Preservation in 1974.¹³ The Trust continues the tradition of preserving Drayton Hall as a document of the past with all of its history intact, rather than attempting its restoration.

¹²Chase and Murphy, pp. 51-52.

¹³Ibid., p. 61.

2. PERCEPTIONS AND MIS-PERCEPTIONS OF DRAYTON HALL:

THE ROLE OF MYTHS

In the light of its social history and its almost improbable survival to the present day with only minor alterations, Drayton Hall's significance as a historic structure is secure. However, beyond its significance as an historical or cultural monument, it is important to note that Drayton Hall has acquired an undeniable meta-significance which transcends the simple facts of its history and the remarkable qualities of its site and physical fabric. That meta-significance is represented in the ever increasing stature, almost to the level of symbol or myth, which Drayton Hall has assumed in the minds of men since its earliest days. If Drayton Hall's early social and historical connections were suddenly to vanish, it would still be an extremely important cultural monument, if for no other reason than the two and a half centuries of interest which men and women have invested in it. One of the ways in which this interest has manifested itself is in the form of written commentary:

An Englishman, Charles Woodmason, made a visit to South Carolina in 1753, publishing a poem about his experiences in

the London Gentleman's Magazine of that year. A few lines of that poem follow:

What! tho' a second Carthage here we raise,
A late attempt, the work of modern days.
Here Drayton's seat and Middleton's is found,
Delightful villas! be they long renown'd.
Swift fly the years when sciences retire,
From frigid climes to equinoctial fires.
When Raphael's tints, and Titian's strokes shall
faint,
As fair America shall deign to paint...
Domes, temples, bridges, rise in distant views,
And sumptuous palaces the sight amuse.¹⁴

An article advertizing the sale of a nearby property in the South Carolina Gazette of 22 December 1758 referred to Drayton Hall as a "palace":

From this house you have an agreeable Prospect of
the Honorable John Drayton, Esqr's Palace and
Gardens...¹⁵

Henry Francis du Pont, the founder of the Winterthur Museum, is said to have called Drayton Hall "the greatest house in America."¹⁶

¹⁴Elise Lathrop, *Historic Houses of Early America* (New York: Tudor Publishing Company, 1936), 25.

¹⁵Fiske Kimball, *Domestic Architecture of the American Colonies and of the Early Republic* (New York: Charles Scribner's Sons, 1922), 99 and 272. Kimball himself cites an article by H. A. M. Smith in the *South Carolina Historical Magazine* 20 (1919), 93, as the source of this quotation.

¹⁶G. E. Kidder Smith in association with the Museum of Modern Art, New York, *The Architecture of the United States*, vol. 2 (Garden City, New York: Anchor Books, 1981), 501. Smith does not cite the source of this quotation.

Samuel Gaillard Stoney devoted twenty pages of his 1938 book, *Plantations of the Carolina Low Country*, to interior and exterior photographs, interior and exterior elevations, and plans of Drayton Hall; he referred to it in several places in the text of the book. The Dover edition of this classic work used a photograph of Drayton Hall for its cover.

In his 1947 book, Wayne Andrews wrote the following of the country houses in the vicinity of Charleston:

But it was on the banks of the Ashley, not the Cooper, that the greater number of plantation houses were erected. Perhaps the most imposing of these was Drayton Hall...The plan is no less splendid than the facade, for the portico conceals an immense entrance hall...¹⁷

Hugh Morrison referred to Drayton Hall as an "outstanding surviving example of South Carolina's plantation houses" in his book, *Early American Architecture*, of 1952. He considered its design advanced in comparison to contemporary buildings in Virginia, citing in particular the use of a two-story portico on the west facade:

The early date [1742] seems remarkable, for Drayton Hall is far in advance, architecturally, of contemporary great houses in Virginia. The west or 'land' facade is dominated by a projecting two-story portico, with superposed Doric and Ionic orders. This feature, which stemmed directly from Palladio, was apparently not employed elsewhere in the colonies until the 1750's. The plan, too, has a monumentality not found elsewhere at this early

¹⁷Wayne Andrews, *Architecture, Ambition, and Americans* (New York: Harper Brothers, 1947), 26.

period...The high basement and parallel flights of steps enhance the dignity of this impressive facade.¹⁸

When describing the east or river facade of Drayton Hall Morrison was less enthusiastic, but he refrained, perhaps out of reverence, from any frankly negative commentary on the weaknesses of its design. Once across the threshold of the door into the stair hall he lapsed happily back into easy praise, identifying Drayton Hall with Pratt's Coleshill of circa 1650:

*The east or 'river' facade lacks a projecting portico, or even a pavilion, but it has a classic pediment to emphasize the main axis...From England, too, came the motive of the double flight of steps meeting at the main entrance; a motive echoed, as one passes through the door, by the magnificent stairs in the great hall. Nothing like this had yet been seen in the colonies; it calls to mind the entrance hall of Sir Roger Pratt's Coleshill, in England, and the whole academic tradition of Inigo Jones.*¹⁹

Finally, speaking of the house in general, Morrison wrote:

The grandeur of the plan, with its monumental effects and excellent circulation between rooms and porches, and the advanced character of the architectural details point to something more than an amateur designer using architectural books; they suggest a professional architect, perhaps one of English training. But as to who he may have been

¹⁸Hugh Morrison, *Early American Architecture From the First Colonial Settlements to the National Period* (New York: Oxford University Press, 1952; New York: Dover Publications, Inc., 1987), 402.

¹⁹*Ibid.*, 402-403.

there is no hint.²⁰

Margherita Azzi Visentini made repeated references to Drayton Hall in her *Il Palladianesimo in America e l'architettura della villa* of 1976. Among those references she commented on the superiority of the building's design. She sensed the hand of a professional architect in the organicity of the building's conception and the perfect correspondence between the building's plan and elevations. She also noted the relationship of Drayton Hall's interior staircase to Pratt's Coleshill.

Frederick Doveton Nichols used the example of Drayton Hall as being representative of his idea of early Georgian architecture in the United States in his essay entitled "Palladio in America."²¹ He also cited Drayton Hall as one of two rare examples of Palladian plantation houses for which early drawings survive, referring to the elevation drawing in the collection of the Historic Charleston Foundation reputed to depict Drayton Hall and its intended flanker buildings.

A photograph of Drayton Hall graces the dust jacket and frontispiece of *The Architecture of the Old South: South*

²⁰Morrison, 404.

²¹Frederick Doveton Nichols, "Palladio in America," in Walter Muir Whitehill, *Palladio in America* (Milan: Electa Editrice, 1976), 99-125.

Carolina, published in 1984 by Mills Lane. Mr Lane devoted ten pages of the book to Drayton Hall, including the following comments:

*Drayton Hall...has been often called the first truly Palladian house in America...its materials and execution are superb. The building's design is far ahead of anything else being done in the colonies at the time.*²²

In 1981 Whiffen and Koeper called Drayton Hall "the first Anglo-Palladian house in America." In their opinion "no public building completed before 1750 is comparable to Drayton Hall."²³

Recently the power of Drayton Hall's stature as a model or symbol was invoked in an argument on the architectural significance of Belmont Mansion, a small country house in Philadelphia which is roughly contemporary to Drayton Hall:

Belmont's plan form is almost unknown in surviving colonial examples of this early a date. Only Drayton Hall, near Charleston, South Carolina, has a comparable plan in a house earlier than Belmont. At Drayton the largest room is a heated central hall, although the flanking spaces are much larger than Belmont's. Drayton Hall's date (1738-42) is close to Belmont's (1745) making both precocious in the colonial scene, and as we will see, there are decorative aspects of the two houses that make Drayton the most comparable building to Belmont in

²²Mills Lane, *The Architecture of the Old South: South Carolina* (Savannah, GA: Beehive Press, 1984), 42.

²³Marcus Whiffen and Frederick Koeper, *American Architecture, 1607-1976* (Cambridge, MA: MIT Press, 1981), 72.

the American colonies.²⁴

This is a small sampling of the sentiments which have been expressed about Drayton Hall over the decades, but it suffices to document the significance that Drayton Hall has enjoyed and still enjoys, with good justification, in the minds of many different kinds of observers. The significance of Drayton Hall both as an impressive structure of considerable representational grandeur and as the seat of a family of great social importance is reflected in the writings of travellers and diarists who knew of Drayton Hall early in its history. In our own time Drayton Hall has acquired an important place in discussions of American architectural history.

The sampling of writings about Drayton Hall presented above is also intended to suggest the manner in which an assemblage of bricks and stones and timbers, albeit a very

²⁴Martin Jay Rosenblum, R. A. and Associates, *Belmont Mansion: Historic Structures Report*, January 1992, prepared for the Fairmount Park Commission, unpublished, chapter 2, page 2. In the opinion of the author of this thesis, the comparison between the two houses is inappropriate, but that is not the point here. Belmont's HSR makes several additional references to Drayton Hall which further emphasize Drayton Hall's present influence in the world of the architectural historian. The authors of the Belmont report have proposed that the house be interpreted without furnishings "as an architectural artifact, highlighting the importance of its interiors." This proposal they have dubbed the "Drayton Hall Approach." Ironically they have also proposed the complete removal of the third story of the building, added in the nineteenth century, and the conjectural restoration of the building's original roof and cornice.

grand one, is elevated through a kind of apotheosis to the level of symbol. Such a building is granted a plot of ground on the plane of myth, where it begins an existence parallel to the one on the plane of reality. Historical analysis, when it can rely on primary documentation, seeks to remain on the latter plane, though there is always the inexorable tendency to reflect a site's life on the former plane as well. This tendency has grave and interesting implications for the objective consideration of a building such as Drayton Hall.

Places of great physical and spiritual power provide fertile ground for the development of myth. Myth, as defined in *Webster's Seventh New Collegiate Dictionary* is "a usually traditional story of ostensibly historical events that serves to unfold part of the world view of a people or explain a practice, belief, or natural phenomenon," and also "an ill-founded belief held uncritically especially by an interested group."

Many myths, major and minor, have grown up around Drayton Hall. Meggett Lavin, the Curator of Education and Research at Drayton Hall, maintains a running inventory of Drayton Hall lore, particularly errors of fact about its history that have found their way into print and have subsequently been perpetuated on paper and by word of mouth. Many individual stories have their own genealogies, which can be traced back to a presumed original error.²⁵ These myths are, for the

²⁵Personal communication with Meggett Lavin.

most part, humble ones that deal with subjects peculiar to Drayton Hall, such as the identity of its designer, or the original purpose of the mysterious column parts of Portland stone piled in the cellar. On the surface at least, these are not the types of myths that give glimpses into the deeper currents of the human psyche.²⁶ Rather they are the traditional stories of ostensibly historical events, to quote Webster's, which provide explanations for the many unanswered questions about the past of Drayton Hall and the many anomalies visible today in its physical fabric.

The potential for the creation and perpetuation of myths at Drayton Hall is particularly great. It is a building of intrinsic interest, possessing immense social, cultural, and historical importance from its earliest days; yet comparatively little is known about those days and the circumstances of the building's creation. Early documentary evidence is almost completely lacking, an ideal condition for the genesis of myths.

²⁶On the other hand, there is a group of stories, often heard on the lips of visitors and docents alike, that Lavin has been told repeatedly at sites throughout the South. The familiar "mortgage button" and "petticoat mirror" stories are good examples, which the author has heard many times in the mid-Atlantic states and in the Midwest as well. The seemingly independent recurrence of such stories at so many different sites in different regions is a characteristic feature of myths in the larger sense. Their mundane subject matter notwithstanding, such myths have a kinship with the types of tales which pique the curiosities of folklorists and comparative mythologists of the ilk of Joseph Campbell. A serious study of the generation and spread of such myths would be very interesting. The resiliency and prevalence of these stories may be a consequence of their sheer plausibility.

Drayton Hall, furthermore, was built in an age that is particularly mythic for Americans, a period that witnessed the European settlement of a "new" continent, the birth of a new nation, and the lives of people of heroic stature.²⁷

Several of the authors quoted earlier in this thesis have made statements which demonstrate the ways in which some of the stories about Drayton Hall have evolved in published works of architectural history:

Morrison stated in 1952 that the frame of the entry door on the river side of Drayton Hall and the three tabernacle frames on the wall above it were made of finely carved Portland stone imported from England.²⁸ In actuality, the material of all four frames is carved wood. The 1974 nomination of Drayton Hall to the National Register of Historic Places repeated this error.²⁹ Azzi Visentini repeated the same error in 1976.³⁰

Among the references available to the author of this

²⁷Many such heroes have developed their own significant bodies of myth, the more commonplace elements of which are familiar to school children (George Washington and the tale of chopping down his father's cherry tree, for instance).

²⁸Morrison, 403.

²⁹Personal communication with Meggett Lavin.

³⁰Margherita Azzi Visentini, *Il Palladianesimo in America e l'architettura della villa* (Milan: Edizioni il Polifilo, 1976), 175.

thesis, Morrison was the first to describe the grand double staircase at Drayton Hall as reminiscent of the one at Coleshill, Berks, circa 1650, by Sir Roger Pratt. (See figures 2, 3, 4, and 5.) Morrison in this instance, was making a comment on the form and grandeur of the Drayton stairs, the like of which had not yet been seen in the colonies. He cautiously stopped short of saying that the Coleshill stairs had actually exerted any influence on the design of the stairs at Drayton Hall.³¹ Azzi Visentini, who read her copy of Morrison well, repeated the comparison³². Whiffen and Koeper displayed less caution in 1981 when they took the comparison a step further by stating that "these [Drayton Hall stairs] are modelled on the stairs of Coleshill, which in the eighteenth century was believed to be a work of Inigo Jones..."³³ Their footnote to that statement reads as follows:

*The plan of Coleshill must have crossed the Atlantic by some other means than a book, for it was not published in one until 1771, when it appeared in the continuation of Vitruvius Britannicus by J. Woolfe and J. Gandon.*³⁴

Whiffen and Koeper's statement, that a plan or knowledge of Coleshill must have been at hand in South Carolina at the time of the construction of Drayton Hall, indicates that they

³¹Morrison, 403.

³²Azzi Visentini, 175.

³³Whiffen and Koeper, 72.

³⁴Ibid., 436.

believed that the building was designed in the colonies.³⁵ They fully accepted as a fact the hypothesis that the design of the Drayton stairs was based on Coleshill.

A final example of a lesser myth at Drayton Hall is the story of its designer, whose identity, through lack of early documentation, is unknown. Morrison felt that the "grandeur of the plan," the "advanced character of the architectural details," and the sophisticated handling of circulation between the rooms and the porches suggested the involvement of a professional architect, "perhaps one of English training."³⁶ Several aspects of the design suggested the participation of a professional architect of unknown identity to Azzi Visentini, but she refrained from comment on his national origins.³⁷ Mills Lane produced the most elaborate version of the story in 1984 with the introduction of a new element:

*The designer of Drayton Hall is not known, but he must have come from England to supervise the construction, for its materials and execution are superb.*³⁸

Clearly, Lane was not burdened by any feelings of uncertainty

³⁵Whiffen and Koeper, 72. This is understandable because they credited John Drayton, himself, with the design of the house "until research turns up the name of an architect or builder that can be attached to it."

³⁶Morrison, 404.

³⁷Azzi Visentini, 175.

³⁸Lane, *Architecture: South Carolina*, 42.

about the origins of the architect, who in this version travelled bodily to America.

Though it is amusing to observe the subtle changes in the details of these stories as they are re-told by each successive author, the point here is not to have fun at the expense of these scholars, but rather to illustrate the mythological qualities inherent in much of what has been written about Drayton Hall and other venerable buildings like it, which are encumbered with incomplete or unclear histories.

It might be argued that the examples cited above represent nothing more than errors or assumptions perpetuated by successive authors quoting the authorities who have gone before them. To some extent this is true; the risk of perpetuating the errors of predecessors is an everpresent danger in scholarly endeavors. But something more is happening here; hypotheses of the sort presented in the examples above gradually become accepted as traditional knowledge, which ultimately is confused with historical fact. The tendency of such stories to acquire embellishments in the re-telling is indicative of the myth-making process at work.

There is nothing intrinsically wrong with myth; on the contrary, myth can wield great positive power. Sites like Drayton Hall derive some of their power to inspire and fascinate visitors, as well as scholars, from the mythic aura which surrounds them.

The need to explain the enigmatic is basic to human nature. Myths serve this function whether the enigma is mundane or profound. In other words, myths may arise from a need to fill troublesome little gaps in a history which is significant to an interested group, just as they may spring from deeper currents in the human psyche, reflecting those currents in a disguised form.

For the context of this thesis, however, myth has a problematic aspect. Ideas, including myths, have tremendous power once they are conceived. When an idea, even an idea that is acknowledged as a guess or assumption, is admitted into a person's view of the world, it can color his future perceptions of that world and his responses to alternative ideas. Ideas already circulating within a person's world view can profoundly influence the selection of which new ideas will be allowed into consciousness and which excluded. Traditional knowledge has the potential power, through the sheer force of its existence and the strength it gains from repetition, to exclude alternative notions from consciousness.

Even careful scholars are not immune to this problem. Students of a building like Drayton Hall, who seek to elucidate a complicated and incomplete history, are hard-pressed to withhold belief from all hypothetical elements of that history if they wish to proceed. Usually one or more hypotheses must be chosen as assumptions. That choice, which can happen largely on an unconscious level, is critical.

In the present context, traditional knowledge in the form of various myths about Drayton Hall has the potential power to block from consciousness possible new conceptions of the building's early history which do not coincide with the prevailing theories of its design and construction. Traditional knowledge is strong enough to block our perception of clues about Drayton Hall's past that are hidden in its plan and cause us to overlook or misinterpret telling anomalies in its physical fabric. The possibility that this has actually happened in the case of Drayton Hall is the central assumption of this thesis.

3. PROPOSAL FOR AN ALTERNATIVE HISTORY OF THE DESIGN AND CONSTRUCTION OF DRAYTON HALL

Drayton Hall is a structure of many valid superlatives, and yet it is an imperfect building in many ways as well. Anomalies exist within its physical fabric which lack satisfactory explanations. Many minor and not so minor myths have developed at Drayton Hall out of a basic human desire to answer the questions which arise about its past and for which no solid documentary evidence exists.

Conscious of the irony involved in advancing a new theory about the design and construction of Drayton Hall, that could be the genesis of yet another myth about its past, the author of this thesis proposes that Drayton Hall was not built according to its original design.

Rather, the original plan was adapted during the very early phases of construction, or even before the actual construction started, in order to allow a significantly larger and substantially different house to be built. The original plan was cleverly resolved and clearly the work of an experienced designer with considerable taste and insight. Had the plan been realized, it would have resulted in a house of far greater "Palladian" balance and harmony than even the

handsome structure that Drayton Hall is today. The modifications made to the plan damaged many of its subtle features and suggest the contributions of someone less skilled than the original designer.³⁹

The departure from the original plan resulted in the alteration of the dimensions of *all* of the rooms in the house, not just those of the first and second floor great halls and stair hall, as has long been recognized. The clues that hint at the nature of the original design are present in the plan of the building as it exists today, but they are very easy to overlook, especially if the present plan and the many anomalies in the physical fabric of Drayton Hall are not considered simultaneously.

In its progress toward the sea, the Ashley River briefly assumes a fairly straight east-southeasterly course as it flows past Drayton Hall. The orientation of the river and of the Ashley River Road determined the siting of Drayton Hall,

³⁹Chase and Murphy, 213-214. Chase and Murphy had come to the same conclusion but in a much more limited context. They had concluded that the first and second floor great halls had been enlarged at the expense of the stair hall, which was narrowed by about three feet. They observed that the lower sections of the grand staircase currently pass across the first floor windows in the stair hall in an uncomfortable way. They felt that a larger stair hall would have accommodated a greater number of steps in the second flight of stairs against the north and south walls, which would have allowed the first landings to be constructed at a lower level. This "incongruity in a sophisticated plan" suggested to Chase and Murphy the possibility that the shift in the position of the wall between the great halls and the stair hall was initiated by someone of lesser architectural education than the original designer who did not foresee the consequences of the modification in the plan.

such that its river facade faces northeast and its land facade faces southwest. For the sake of simplicity, however, this thesis has adopted the following conventions, also employed by Chase and Murphy in the HSR: The facade facing the river is called the east facade. The land or portico facade is called the west. The southeast and northwest facades are referred to as the south and north facades respectively. Of course, the same conventions apply to the locations of specific rooms and to descriptions of Drayton Hall's interior features.

The figurative center of the conundrum of Drayton Hall's original design coincides with the literal center of the house. At the ground level are two free-standing brick arcades, each consisting of three arches, running north to south, which cross the short dimension of a large central space. (See figure 6.) Beyond the western arcade the central space extends out under the floor of the portico. The exterior brick wall of the first and second floor great halls, which is also the recessed, back wall of the portico, may be considered the vertical extension of the ground level western arcade.

Two large summer beams, which support the floor of the great hall on the first principal level, span the gap between the east and west arcades. (See figures 6 and 7.) The summers logically rest on the piers which separate the three arches in each arcade. The summers divide the long dimension of the great hall into three structural bays. The western

arcade originally carried another pair of summer beams, also resting on the tops of the piers but extending out under the floor of the portico in the opposite direction. These have since been replaced. A corresponding set of four summer beams once existed at the second level as well, one pair supporting the floor of the great hall and the other supporting the floor of the porch. Their load was also ultimately transferred down onto the western arcade via the back wall of the portico.

The eastern arcade stands along a line whose position is symmetrical with that of the western arcade, with respect to a large cooking fireplace on the south wall of the central space. The summer beams supporting the floors of the great hall and stair hall rest on its piers in the same arrangement as on the western arcade. Unlike its counterpart, however, this set of arches carries no masonry.

In plan, the western arcade can be considered the equivalent of the masonry walls that separate the various spaces at the cellar level of the house and are carried up to the first and second floors in a rational way. (See figures 6, 7, and 8.) At the upper levels these brick walls divide the various rooms, support their floors and ceilings, and carry their panelling.

The partitions that separate the first and second story great halls from the stair hall, however, represent the exception to this rule. It seems clear that they were originally intended to have been made of brick like the other

walls in the house and were to have been built on top of the eastern set of arches on the ground floor. Instead they were constructed along a line 34 inches (or about 3 feet) east of their originally intended position. The fact that these partitions ultimately rest on the summer beams within the floor of the stair hall and not on masonry, required that they be constructed in timber rather than brick.

Chase and Murphy noted this anomaly in their HSR and attributed it to the desire for a larger, grander great hall on the first floor. They assumed that the enlargement of the great hall was made at the expense of the width of the stair hall and resulted in problems in the layout of the stairs themselves.

They also correctly observed that the change in the width of the first and second floor great halls had disturbed the symmetry of the south walls in these rooms. On both levels a fireplace is located about 3 feet to the right of the wall's center, requiring the inclusion of an additional, odd-sized panel between the fireplace mantel and the jamb of the door on the left. (See figure 9.) Had the room been constructed according to its originally intended dimensions, this door would have occupied the present position of the anomalous panel and would have terminated the wall on the left, just as the wall is terminated on the right. The builders apparently thought it better to keep the door at the corner of the room rather than end the wall with the necessary additional panel.

The width of this panel corresponds to the distance that the east walls of these two rooms are offset from the brick arcade at the ground level.

Chase and Murphy also noted that the change in the position of the wall had spoiled the Doric entablature at the northeast and southeast corners of the first floor great hall. The carpenters were apparently unable to resolve the turning of the entablature at these corners without creating an awkward juxtaposition of partial decorative elements in the soffit of the cornice.⁴⁰ (See figure 10.)

In summary, the generally accepted explanation for the anomaly of the offset timber partitions, an explanation which is carefully outlined in the HSR, is as follows: The construction of Drayton Hall had advanced according to its original plan up to about the level of the first floor. That original plan envisioned a larger stair hall and a narrower great hall. At about this time someone, presumably John Drayton, decided that the great hall should be built larger than indicated on that plan. The only means of achieving this was by robbing the stair hall of about 3 feet of its east-west dimension. The partition wall between these two rooms had to be constructed in wood rather than brick because of the 3 foot displacement from its intended masonry support. Aside from

⁴⁰Chase and Murphy, 213. Chase and Murphy referred to the carpenter's difficulty in resolving the "construction of the *taenia* according to the established decorative pattern," by which they probably meant the difficulty with the *soffit* of the cornice.

certain problems in the framing of the floor of the great hall on the second level, it is presumed that the construction of the house continued to completion more or less according to its original plan but with the one important modification of the offset timber partitions on the first and second levels.⁴¹

What is wrong with the story summarized above? At the first hearing, nothing. It is entirely reasonable, simple, and accounts neatly for the present appearance of this area of the house. The departures from the working plan of the building that were made *at the time that construction had reached the first floor level* probably happened in something very close to the scenario just described. The problem of this story is not that it is untrue, but rather that it is entirely too self-contained. The story allows us to dismiss the anomalies in question as sufficiently explained and not

⁴¹One assumes that the change in the plan was not made before the building had reached at least the first floor level, because at an earlier point in time the problematic locations of the fireplace/chimney mass and the eastern brick arcade should have been foreseen and corrected. Many of the unfortunate structural consequences, which resulted directly or indirectly from the change in the position of the wall and which plague Drayton Hall to the present day, might have been avoided had a third masonry arcade been built immediately under the new location of the wall during the original construction period. The builders presumably thought that the shift to a lighter mode of construction in timber would be sufficient.

One also wonders whether the brick wall that had been intended to rise on the eastern set of arches had ever been built to any extent. The builders would have needed to cut the wall back down in order for it to pass under the floor boards of the great hall.

requiring further consideration. In doing so we fail to recognize possible broader interpretations of the anomalies which the usual version of the story seems to explain so satisfactorily. In its all-embracing simplicity, the story even accommodates explanations of other anomalies which are not directly related. For instance, Chase and Murphy were led to some incorrect conclusions about the framing of the floor in the second floor great hall. They bundled the anomalies currently visible in the floor framing in that location into the scenario of the change in the dimensions of the great halls, a notion which is entirely logical, at least on a superficial level, but which subsequent research into the physical fabric of the framing itself has shown to be false.

The floor of the second level great hall is supported by seventeen 3" X 10" joists which span the long dimension of the room between its north and south walls; this is an uninterrupted span of nearly 30 feet. The reader will recall that the structural system of the floor on the level below is divided into three bays by two large summer beams spanning what was to have been the short dimension of the room from east to west. (Of course, the room now extends slightly out over the structure of the stair hall floor.) These summers support three sets of joists, each approximately $9\frac{1}{2}$ feet in length, running north to south like the long joists above them.

The language of the HSR implies that Chase and Murphy

believed that the long joists were contemporary with the change in the width of the first floor great hall, which they reasonably assumed had been made around the time the walls on the first floor were being constructed.⁴² Furthermore, they believed that the change in the structural system was instigated by the need, perceived at the time of the original construction, to throw the weight of the floor of the second level great hall onto the north and south masonry walls of the space, rather than onto the relatively flimsy timber partition between the stair hall and the great hall on the first level. Chase and Murphy argued that if the floor of the second floor great hall had been constructed with two large summer beams in a manner consistent with the other framing in the central part of the house, a significant portion of its weight would have been transferred via the timber partition of the first floor onto the two summer beams supporting the floor of the stair hall. Those beams were already heavily loaded with the weight of the timber partitions on the two levels above them. Chase and Murphy felt that by framing the second floor in a manner not originally intended, the builders of Drayton Hall had sought primarily to avoid overloading those two summers.⁴³

Incredibly, it now appears that the floor of the second floor great hall and the ceiling below it were supported for

⁴²The walls which were lengthened show no signs of alteration in their panelling, which one would expect to see if the room had been enlarged after its original construction.

⁴³Chase and Murphy, 214.

about 120 years in exactly the manner that Chase and Murphy believed the builders had sought to avoid. Research undertaken at Drayton Hall in the summer of 1991 by a team from the Architectural Conservation Laboratory (ACL) of the University of Pennsylvania revealed that the long joists had been substituted for the earlier structural system around 1860.”

The issue of the floor framing is not of direct relevance to the theory about the original plan of Drayton Hall shortly to be presented. What is relevant here is the degree to which the satisfying and self-contained story of the shift in the wall position had led to a misinterpretation of the long joists described above. It has also drawn attention away from the potential broader implications of the current positions of the fireplace/chimney mass and of the eastern brick arcade. The additional insights into the original plan of Drayton Hall that the chimney and arches can provide have been overlooked.

The discussion now departs the ground floor of Drayton Hall and proceeds outside to consider the present configuration of its north and south facades. (See figure

“Beas et al., *Documentation and Conditions Survey*, 35-38. Josephine Manigault, a Drayton cousin, observed a failed ceiling in the first floor great hall on a visit to the house in November 1855. That ceiling, which was probably replaced within a few years of Manigault's visit, is believed to have been supported on the original timber framing, remnants of which can still be seen beneath the second floor timber partition. The letter, in which Manigault describes the ceiling, is in the archival collections at Drayton Hall.

11.)

The north and south facades are essentially mirror images of one another; therefore, the following discussion about the south facade applies equally in reverse order to the north facade as well.

The south facade of Drayton Hall is arranged in six bays, the first in this discussion being on the left and nearest to the portico. By this convention the last or sixth bay is on the eastern end of the wall toward the river. The use of an even number of bays on the facade rather than an odd number is not the usual practice for such a formal building, but this could be dismissed as having been required by the plan and arrangement of the interior spaces. This elevation is, after all, subordinate to the east and west facades and represents a location where liberties with the usual compositional canons would most likely be taken, if required.

There are, however, more bothersome anomalies in the arrangement of the facade. The distribution of the doors and windows is very peculiar. At first glance it appears as though no two bays on the facade are of the same width. The windows of the two principle stories are all of the same size, but the variation in the width of the brick piers between them sets up a strange rhythm on the elevation that one would not expect to see on a house of this level of pretension, even on a subordinate facade.

The sixth bay is the broadest of all; it is wider than

the third and fourth bays by a full 66%. Again this might easily be dismissed as a reflection of some sort of programmatic need on the interior of the house that was satisfied at the expense of a more harmonious composition on the facade. In actuality, the width of the last bay and the variation in the widths of the interfenestration make even less apparent sense on the interior; this will be discussed in greater detail later.

The rhythm in the spacing of the window openings, real and false, at the ground level is much more comfortable than that of the two principal stories above it. The distances between the center lines of bays one through five are nearly equal at the ground level. This condition does not prevail at the first and second floor levels. Clearly much of the disharmony of the facade has resulted from the approximately 8 inch shift of the first and second floor windows of bay three to the east of their ideal locations, as indicated by the position of the false window at the ground floor level. In this case there **was** an interior need that required this shift, and this also shall be discussed later.

"Restoration" of the windows of the third bay to their ideal positions results in an improved but still problematic appearance of the facade. (See figure 12.) The sixth bay remains anomalous. For horizontal symmetry to have prevailed on this facade, bay six would have had to have been built as an approximate mirror image of bay one, its counterpart on the

adjacent corner. In fact, bay six is at least four feet wider than bay one. The centers of the window openings in bay six are consistent with one another in that they all fall on the same vertical line from the ground level through the second story. If the cadence established by the ground floor openings in the first five bays had been maintained through the sixth bay, this line of windows would have had to have fallen approximately 1 foot west of its current position. One could interpret the present position of this line of windows as having resulted from an eastward shift of these windows away from their ideal positions toward the center of the wider bay, so that the latter would not appear too strange and out of scale with the rest of the facade. If this had been the strategy, and it appears that it had been, it was only partially successful. The sixth bay is simply too wide to be easily satisfied by the eastward shift of this line of windows, yet it is too narrow to accept an additional line of windows which would have constituted a seventh bay.

What then determined the width of the anomalous sixth bay? Certainly not any consideration for the appearance of the facade. One would ordinarily assume that the explanation for such a peculiar arrangement would be readily apparent on the interior of the house. This is not the case at Drayton Hall. The windows of the three easternmost bays on the south facade belong to the southeast corner chamber on the first floor, the so-called "Ionic" drawing room. It has acquired

that designation by merit of its very fine panelling, including pilasters and entablatures in the Ionic mode. (See figure 13.) The discussion proceeds to that room.

There is certainly no explanation for the odd width of the sixth bay here, nor for the position of its window, save the notion that it was placed roughly at the center of the anomalously wide sixth bay. (See figure 14.) If anything, the width of the sixth bay and the placement of its window have played even greater havoc with the arrangement of the openings and panelling on the south wall of this room than they had with the rhythms of the fenestration on the corresponding facade. Unlike the east, west, and north walls of this room, whose openings and panelling are symmetrically arranged, the south wall is nothing but a seemingly irrational hodge-podge of strange window placements and variously sized panels. The first window on the left side of this wall sits well away from both the corner of the room and the window next to it, while the last window on the right has been pushed into the adjacent corner of the room without an intervening panel. It is no surprise that this awkward arrangement of elements was not mirrored by the panelling and the pair of doors, one real and one false, on the opposing wall.

These anomalies are not unique to the Ionic drawing room. Just as the north and south facades mirror one another, so do the peculiarities in the panelling and fenestration of the first and second floor eastern corner chambers on the north

and south sides of the house.

What is going on here? It would seem as though the width of the last bays on the north and south facades were completely arbitrary elements in an otherwise very rational plan, elements which can find no explanation on either the interior or exterior elevations of the house. In actuality, the width of these last bays, while regrettable, is anything but arbitrary. This is also a topic which must wait until later in this presentation.

The discussion now departs the disorder of the Ionic drawing room for the comparative serenity of the small chambers at the northwest and southwest corners of the house. (See figures 7 and 8.) Here a very different feeling prevails. These relatively small chambers are roughly square. Two openings, either doors or windows, are placed on either side of all four walls in each of the two rooms on the first and second floors. All four walls in each room are symmetrically arranged. There is, furthermore, a correspondence between the north and south walls of these rooms; in each room the door openings on the north or south walls are roughly aligned with the window openings on the opposing walls. The plan on the western side of the house cleverly allows direct access from any one of these rooms into all of the spaces adjacent to it, including the portico, without requiring that an intervening room be traversed. Lines may be drawn across the western side of a plan of

Drayton Hall from the first pair of windows on the north facade to the corresponding windows on the south facade, identifying unbroken lines of sight across the building which may or may not have been intended by the original designer. (See figure 15.) What the designer certainly *had* intended is a grid-like, modular regularity and rationality that permeates the plan of the western half of Drayton Hall. This regularity can also be extended conceptually into the third dimension. As already mentioned above, the plan of the ground story on the western side of the building has been preserved all the way up to the floor of the attic.

This sense of modular rationality falls apart in the rooms on the eastern side of the house. Gone is the regular spacing of the windows on the north and south facades. Gone also is the positional correspondence of doors and window openings on opposing walls. What could have happened to the clever resolution of the plan so evident on the western side of the building? It is almost as though a different designer had been at work here.

The discussion now returns to the ground floor space where the east and west brick arcades and the fireplace on the south wall are to be found. Together with the north and south walls of the space, the arcades define a quasi-great hall at the ground level which was never realized on the upper floors because of the change in the location of the east walls. Are these arcades, particularly the eastern one, merely a vestige

of the unrealized plan of a single room on the two floors above, or do they also represent a far more extensive plan which was not carried out as originally intended?

One need only stand and gaze at the east or west facade of Drayton Hall to realize that the building is composed symmetrically with respect to the east-west axis, with the exception of such elements as the winder service staircase and the fireplaces of the great halls. The overall house, as constructed, possesses no comparable north-south axis. The quasi-great hall in the ground floor *does* have a north-south axis, however, which is centered on the fireplace on the south wall. The brick arcades here are arranged symmetrically on either side of this axis and run parallel to it. The chimney masses on the north and south sides of the building, which serve the fireplaces of the corner chambers, almost fall on this north-south axis as well; the centers of both chimneys stand about 18 inches to the east of the axis.

Entertain for a moment the notion that this north-south axis had not only been intended to define the arrangement of the doors and panelling in the great halls but to define the arrangement of the walls and rooms in the entire house. Imagine that Drayton Hall had been designed as a bi-axially symmetrical house arranged not only with respect to a very obvious east-west axis but also with respect to a not-so-obvious north-south axis as well. Imagine that the western portion of Drayton Hall, on the one side of this north-south

axis, were reproduced in mirror image on the eastern side of the axis, as well. (See figure 16.) If adjustments are made to the elevations of the north and south facades to reflect this imaginary ideal plan, an interesting version of the house emerges. (See figure 17.)

It can be no coincidence that this imaginary house turns its corners at the ends of the present fifth bays on the north and south facades, exactly the points at which the seemingly inexplicable sixth bays on the present house begin. The latter have vanished from the ideal house, alien elements that should never have been there in the first place. The fifth bays now mirror the first, and the symmetry of the facades is restored. The proportions of the great halls and their symmetries are also restored. So are the symmetries of the eastern corner chambers, the problems in their panelling resolved. (See figure 18.) An eastern portico has appeared on the site of the present stair hall, allowing the clever direct communication of all rooms with their adjacent spaces to be a characteristic of the entire house rather than just its western half.

The author believes that at one time an ideal or original plan for Drayton Hall existed, which corresponded to the imaginary house just described. He believes that the current appearance of Drayton Hall resulted from substantial departures from the original plan that were made just before or during the early phases of the construction.

Of course, the original plan just described did not include the present grand stair hall, and there is reason to question whether a monumental, central stair hall, three feet wider than the one actually realized, was a part of the original plan of Drayton Hall, as has always been believed. Clues lie in the position of the exterior wall of the current stair hall and the decorative treatment of its facade. The problem of circulation between the first and second floors in the ideal house will be treated later.

The outside face of the present east wall of Drayton Hall falls precisely along the line at which the first level of the eastern portico would have terminated, had it been built. This line must be distinguished from the line of the colonnade which stands about eight feet closer to the center of the building than the edge of the platform, where the stairs begin to descend.

This correspondence is not a coincidence. It is a consequence of rational geometry. If the position of the eastern arcade at the ground level had been allowed to define the dimensions of the great hall on the first level, the ratio of its short dimension to its long dimension would have been 0.61. This is very close to the ratio of the dimensions of the golden section, which is approximately 0.62. The dimensions of the stair hall, if it, too, had been built as indicated by the position of the brick arcade, would have had the same dimensions as the great hall in the original plan.

The first level platform of the existing west portico was actually built with these same dimensions. Thus, the central portion of the ideal house would have been occupied by a succession of three identical rectangles, whose dimensions correspond to the golden section, and which are arranged so that their long sides border one another and run parallel to the east and west facades. In other words, the rational geometry just described, would have prevailed in the existing house if the east wall of the great hall had been built in its originally intended position. Of course, this rational geometry would also have prevailed if a symmetrical portico had risen on the east in place of the present stair hall.

This last consideration leads to a practical explanation for the correspondence between the position of the east wall of the present stair hall and the edge of an unbuilt, hypothetical eastern portico. If the work on the foundations of an "original" Drayton Hall, which included an eastern portico, had already begun before the decision was made to incorporate a grand stair hall into the plan, at least a trench and possibly a footing, intended for the base of the portico, would already have been in place at this location. It would have been practical to take advantage of the labor already expended and to construct the walls of the stair hall along the outlines of the portico, if it were to have been a new feature in a modified plan.

Though appealing, the practicality scenario is not a

proof that the stair hall was an addition to the original plan of Drayton Hall. The rational geometry described above could just as easily have determined the position of the east wall of the stair hall if it had been a part of the original conception. The "coincidence" in the positions of the east wall of the existing stair hall and the edge of the hypothetical eastern portico on the ideal plan is very important, however, because it illustrates that there are hidden symmetries within the existing physical fabric of Drayton Hall, which are arranged relative to an ideal north-south axis, which itself is no longer evident. That this axis is a vestige of an earlier ideal plan of the house, in which it would have played a more visible role, is an intriguing notion.

There are features of the facade fronting the stair hall which suggest to the author that it, in fact, was not foreseen in the original design. (See figure 19.)

Morrison was lukewarm in his description of this facade. He observed that it had neither a portico nor a projection to define a central pavilion, but that it did have a pediment to emphasize the main axis.⁴⁵

There is a bizarre, naive quality in the handling of the classical elements on this facade. It is difficult to believe that the designer of the western facade could also have been capable of producing this work. It betrays a relatively

⁴⁵Morrison, 402-403.

shallow understanding of the use of classical elements, which stands in high contrast to the skill and confidence with which such elements were handled elsewhere in the building.

The tabernacle frames on the second floor of the three central bays have a peculiar appearance. They are too large and out of scale with the rest of the facade. They also seem to hover without any visible means of support. They have neither aprons anchoring them to the belt course at the base of the second story nor console brackets supporting their sills. The sills themselves are too thin and insubstantial to serve as bases for the flanking pilasters and heavy entablatures that surround these windows.

Perhaps the most striking oddity about these windows is that they stand at a level about 2 feet below the other windows on the second story. In his excellent book on the small Georgian house in England and Virginia, Daniel Reiff illustrated more than 200 Georgian facades on both sides of the Atlantic. Not one of those illustrations displays the dislocation of a bank of windows to a level different from that of the remaining windows on the same story, as has occurred on the east facade of Drayton Hall. In every case depicted by Reiff, the same window level was maintained all across the facade.

There are plenty of examples in Reiff's book of rows of windows surmounted by alternating triangular and curved pediments, particularly at the second level. However, in

those examples, generally all of the windows across the entire facade were given such pediments. In every case, all of the windows on a particular floor were built at the same level, pediments or not. The only examples of wall openings that were treated in a manner remotely similar to the three windows at Drayton Hall were single doors on the second floor, which opened out onto small balconies supported over the central entry doors by large brackets. The lintels of these balcony doors sometimes fell below the level of the lintels of the flanking windows, and when they did, they were often crowned with elaborate pediments.

An explanation for the solecism of the three tabernacle windows may be found on the interior of the stair hall. The sills of the three windows coincide with a chair rail-like moulding that wraps around the entire room at about the second floor level. Its position seems to have been determined by the height of the window sills and not vice versa. The designer of the stair hall appears to have attempted to locate the second story windows in such a way that the openings were pleasantly distributed in the two-story panelling of the east wall. He may have thought that the placement of the windows at the normal height would have made them appear too close to the ceiling and too far above the first floor windows.

Confronting the anomaly that he had thus created on the formal entry facade, the designer of the stair hall may have elected to "dress up" these three windows with enframements so

grotesquely oversized that they appear to butt up against the lower edge of the cornice. It seems unlikely that the putative original designer of Drayton Hall could have incorporated such errors into the design of this facade.

Also the pediment which graces this facade has a strange appearance. Azzi Visentini observed that it didn't appear to relate architecturally to anything else on the facade.⁴⁶ Kidder Smith described it as "perching a bit nervously on the eave."⁴⁷ Indeed, its perch is precarious; it hovers without any sort of architectonic support above the cornice of the building, which runs without interruption from one end of the facade to the other. The cornice fails to break forward or acknowledge the position of the pediment in any way, as it would have done if even a slight projection of the three central bays had defined a pavilion beneath the pediment. There are examples in Charleston of central pediments on facades that have no projecting pavilions. On these examples, however, the cornice breaks forward briefly below the ends of the pediment, which gives visual support to the pediment and allows its cornice to sit slightly forward of the principal cornice on the body of the house. The projections of the principal cornice are themselves given real or implied support by large console brackets. (See figure 20.) No such device was employed at Drayton Hall.

⁴⁶Azzi Visentini, 175.

⁴⁷Kidder Smith, 502.

A monumental pilaster colonnade of the type employed at the Pinckney house of 1746-48 in Charleston (See figure 21.) would have provided an alternative solution to the organization of the east facade of Drayton Hall, but it, too, was not used there.

The existing pediment, finally, is too small for this facade; it barely extends beyond the edges of the frames of the three windows below it.

This concentration of architectural faux pas at the center of this facade is significant in two respects:

Firstly, the lack of architectural understanding evident in the arrangement of its decorative elements suggests the participation of a designer or designers, hereafter to be collectively called "the modifier", whose work has a relatively naive quality when compared with the considerable skill and erudition evident in the design of the west side of the house. The modifier's activities can be detected in other areas of the house, where his lack of experience in handling compositional problems, is evident. His treatment (or lack thereof) of the spacing between the openings in the north and south facades is a good example.

Secondly, the east facade of Drayton Hall exemplifies a theory to be developed in the following paragraphs of this thesis. Anomalies, when and where they appear, should be considered warning flags that the modifier may have been at work in those locations. The theory proposes that evidence of

the modifier's activities in various areas of the house, as betrayed by the presence of awkward compositional or decorative details, identifies the locations in which he may have made substantial departures, more profound than the moving of a single wall, from a supposed ideal, original plan of the house.

That the locations of more fundamental departures from the original plan should be identifiable by the presence of awkwardness and naivete in the handling of decorative and compositional details is understandable. The details of elements of the house that were built according to the original plan were probably prescribed, however rudimentarily, in the original plan by its designer. No such details would have been at hand for the elements of the house which represented departures from the original plan, e.g. the substitution of a stair hall where a portico might originally have been intended. It would have been necessary for the modifier to fill these gaps in the working drawings by assuming the responsibility of drafting such details himself, a task to which his abilities and training were not equal.

Along these lines of thinking, the cluster of telltale signs of the modifier's work which is present at the center of the east facade of Drayton Hall suggests that a major departure from the original design took place here.

The most immediate hypothesis that comes to mind is the possibility that the stair hall itself was not in the original

plan of the house.

The notion that an eastern portico was planned but never realized provides a hypothetical alternative to the prevailing explanation for the mysterious stack of Portland stone column parts piled on the floor at the center of the basement. These parts include bases, capitals, and eight shaft segments that could be assembled into four Tuscan columns, identical in design and dimensions with those in place on the first level of the portico.

Chase and Murphy cite an explanation, advanced as early as 1875 in an article by Constance Fenimore Woolson entitled "Up the Ashley and Cooper," that claims that these column parts were "intended not for the house, but for a gateway outside."⁴⁸ Chase and Murphy seem to accept this explanation, for they describe the column parts as "unused."⁴⁹ They also state at a different location in the HSR that "it is probable that they have not been utilized since their arrival at Drayton Hall," and that "the stone sections could be assembled into four columns that do appear to be keyed for carriage steps."⁵⁰

The author believes that these observations are

⁴⁸Constance Fenimore Woolson, "Up the Ashley and Cooper," *Harper's New Monthly Magazine* 52, no. 307 (December 1875): 4-6. Chase and Murphy discuss several of the comments that Woolson makes in this article, 48-50.

⁴⁹Chase and Murphy, 209.

⁵⁰*Ibid.*, 49.

inaccurate in several respects. The column parts are not unused. The author noted that several of the parts were heavily weathered as though they had stood in the open air for a long time. The notches were probably not intended for carriage steps. They are rectangular mortises of exactly the type that are incised into damaged stones for the insertion of dutchman repairs. Hairline cracks, which trail away from the edges of several of these mortises are probably the extension of more severe fractures in the stone which were excised at these locations. Ironically, Chase and Murphy seem to have missed the fact that these columns are identical to those on the first level of the portico, though they did note that all are of the same material, oölitic limestone, probably imported from England.⁵¹

Dr. Charles Drayton documented in his journals that repairs to the portico, including the replacement of columns, were made in 1815 and again in 1818. On the first occasion Dr. Drayton directed a man named Schnizle "to set the scaffold to take down a stone pillar, in jeopardy." The column was lowered "safe and cleverly" on 6 May 1815, though it is not clear from which level the column came. On the 5th of June, three years later, Dr. Drayton noted that masons had "finished the erection of the architrave upon the columns." An alteration of the portico architrave on the second level indicated to Chase and Murphy that it may have been the south

⁵¹Chase and Murphy, 209.

column on the second level which was replaced in 1818.⁵²

The author believes that some or all of the column parts in the basement of Drayton Hall represent the remains of columns which were removed in the course of repairs. The mortises for dutchmen may indicate the sites of repairs that were attempted when the columns were still in situ on the portico. The possibility that "spare parts," originally ordered for an unbuilt eastern portico, were already on hand when the repairs to the western portico were made is intriguing. If some or all of the parts in the basement belong to damaged columns which were replaced, they may have been retained as raw materials for future repairs.

Significantly, there are no Ionic column parts in the basement for the second level of an eastern portico, had one been originally planned. If there had ever been "spare" Ionic parts stored on the basement floor, they were used elsewhere long ago or substituted for damaged pieces from the second level of the existing portico. The latter may have been so deteriorated that they were discarded or burned for lime. Future archeological excavations of former landfill sites in the vicinity of Drayton Hall should be mindful of the potential significance of unidentified fragments of Portland stone, should any ever come to light. The absence of columns for a second level on the hypothetical eastern portico may have additional significance, however, which will be mentioned

⁵²Chase and Murphy, 40.

in another context.

The recess of the eastern portico, prescribed in the ideal plan of Drayton Hall proposed above, would have been the logical location for the inclusion of a grand central stair hall into the plan of the house, if it had not been foreseen in the original program. It would have been necessary to locate the stair hall in the eastern recess rather than the western, if the visitor's first view of the ascent of these stairs toward the door of the second floor great hall were to have been a frontal view. That such a stair hall on the east side of the house would also have been the first impressive sight to meet the eyes of awed visitors entering the house from the river approach, would have been perceived as an additional advantage of an eastern location.

There is one more bit of circumstantial evidence that testifies to the improvisational nature of the architectural details of the existing east facade. The structure of the four flights of stairs which flank the entrance to the central space on the ground floor and lead up to the entry into the stair hall on the first floor have no connection to the structure of the house itself. Dean Korpan, who made major repairs to the steps on the east side of the building in the spring of 1985, made several observations that indicated to him that the stairs had been built separately from the house and at an unknown later date. He noted that the footings of the stairs were separate from those of the house and were

actually more solidly constructed. They began at a level 2 or 3 courses of brick deeper than the base of the house footings, and stepped out 6-8 inches in front of the stair structure. These footings and the masonry of the stair structure were not tied into the brickwork of the house in any way. In the course of his work, Korpan removed several Portland stone treads from the second flight of stairs on the left and a layer of supporting brick masonry. He observed that they had obscured joints in the brickwork that had finished pointing and that they had also concealed a window opening which had been bricked in.⁵³ (See figure 22.)

Continuing the line of thought that the present appearance of Drayton Hall represents the work of at least two different designers, whose respective contributions to the final outcome can be distinguished in specific instances, the discussion returns to the south facade to consider once again the meaning of the anomalous sixth bay. The telltale anomaly in this instance was the peculiar spacing of the openings on this facade. That anomaly proved to be a red flag, indicating a more profound departure from the original plan than the author of this thesis had initially suspected. That departure was the extension of the south and north walls of the house, beyond the lengths specified in the original plan, by the width of an oversized sixth bay on each facade. The factors that determined the length of the seemingly arbitrary

⁵³Personal communication with Dean Korpan.

extension of these walls should shortly become clear.

The abstract geometrical relationships that determined the location of the exterior wall of the stair hall were described above. The plane of the outside wall of the stair hall is continuous on either side with the plane of the entire east facade. Therefore, the position of the latter was also determined by the ideal geometry of the *central portion of the house* described earlier. The north and south facades, naturally, terminate at the plane defined by the face of the east facade. Clearly, the anomalous and seemingly arbitrary sixth bays were designed to bridge the distance between the plane of the present east facade and the eastern corners of a building, which was envisioned in an earlier plan but never carried out. The alien character of the sixth bays is now comprehensible; they were merely appended to an earlier, compact, and thoroughly integrated plan of the house, to which they remain, in essence, extraneous.

The anomalous sixth bays represent nothing more than a departure from the original plan that was motivated by the desire to increase the size of the corner chambers on the east side of the house. The modifier did so merely by pushing the east walls of these rooms out 11 feet to a position flush with the east wall of the stair hall, creating the anomalously wide bays in the process. In the face of the physical evidence described above, the conclusion that this actually happened at Drayton Hall seems unavoidable.

The person who chose to enlarge the eastern chambers, and this was probably John Drayton, also chose to share some of the additional space with the corner chambers on the west side of the house. The modifier accomplished this by constructing the north and south chimney masses about eighteen inches east of their ideal locations straddling the north-south axis of the original plan. The eastward shift of the chimney masses was signified on the north and south facades by the eastward shift of the third bay of windows on the first and second levels. The latter shift in the window locations was necessary to keep the windows of the third bays fully within the closet-like passages that link each east-west pair of corner chambers with one another. Because they flank the chimneys, these passages had also shifted 18 inches to the east when the positions of the chimney masses were changed.

That no adjustment was made in the positions of the other windows on the facades to evenly distribute the extra wall area and maintain a regular rhythm in the spacing of the windows is remarkable. It demonstrates the unschooled character of the modifier's work and his hesitancy to adjust existing portions of the design to accommodate his additions, a subject to which this discussion will return later.

The unfortunate lack of insight apparent in the manner in which the house was extended is emphasized by the recognition, that, had the width of the sixth bay been reduced by only two feet, the cadence of the window spacings on the north and

south facades and the arrangement of the panelling on the interior elevations would have remained more or less undisturbed.⁵⁴ The composition of the east facade would also have been vastly improved by moving the east walls of the eastern chambers out only 9 feet rather than 11, stopping short of the plane of the current facade. This would have resulted in a 2 foot projection of the central three bays of the east facade, which would have given the problematic pediment a proper pavilion on which to rest. The question bears restating: Could the author of the subtle relationships evident in the layout of the spaces on the western side of the house possibly have been so oblivious of the pitfalls as well as the opportunities inherent in the decision to enlarge the eastern corner chambers?

The framing of the roof and attic constitute a final anomaly which does not have any direct implications on the theory of the original plan of Drayton Hall outlined in this thesis but warrants mentioning here. Half or more of the current framing of the attic floor dates from the nineteenth century, but enough of the early framing survives to mentally reconstruct the basic arrangement, which was the equivalent of the framing on the two levels below, but for the fact that the three central rectangles were divided into two structural bays rather than three. The author noted two exceptionally large

⁵⁴Ironically, the author of this thesis probably would never have detected that an earlier, symmetrical, bi-axial plan of the house had once existed, either.

dovetail mortises on the wooden top plate of the north facade, each detailed to resist the outward thrust of some large element resting on the plate. An equivalent pair of mortises are present on the south plate as well. These mortises and two parallel rows of very short joists which once ran in the framing of the floor from the north to the south facades suggested to the author the former presence of some very large support structure which could have carried the original flat of the roof (the present upper hip appears to date from the fourth quarter of the nineteenth century) and may also have been capable of carrying a lantern or cupola. The fact that Sir Roger Pratt's major designs, Coleshill, 1649-62, Kingston Lacy, 1662, Horseheath, 1662, and Clarendon House, 1664-66, as well as so many contemporary and subsequent British examples all had cupolas, makes the idea that Drayton Hall once had or was to have had a cupola all the more plausible. The "original" Drayton Hall, particularly if it had had a cupola, would have exhibited a striking verticality not present in the existing structure when viewed obliquely or from the side. (See figure 23.)

The original plan presented in this thesis takes Drayton Hall decisively out of the tradition of the double pile house and, despite its Palladian refinements, places it squarely within the much older tradition of the H-plan house, as exemplified by Stephen Primatt's plan for "A Platform for a Mansion House" which he published in *The City and Country*

Purchaser and Builder of 1667. (See figure 24.)

It is useful to consider the examples of four other early American H-plan houses from the southern colonies. They represent a diverse collection of buildings united only by their use of the H-plan. Tuckahoe, Goochland County, Virginia, enlarged to its present form c. 1730, is a two story building of primarily timber construction.⁵⁵ (See figures 25 and 26.) Exeter, Moncks Corner, South Carolina, c. 1712, was a comparatively diminutive, one-story brick structure which rose to a half-story gambrel over the center section. It has since been obscured by nineteenth century additions.⁵⁶ (See figures 27 and 28.) Much grander was Mount Airy, Richmond County, Virginia, c. 1757, which like Drayton Hall represents the H-plan in Palladian garb. Mount Airy was the fairly literal realization in stone of Gibbs's plates 55 and 58 from *A Book of Architecture*, London, 1728.⁵⁷ (See figures 29 and 30.) The Gibbs plan that served as the prototype for the plan of Mount Airy is strikingly close to the ideal plan of Drayton Hall as well; the author feels that the original designer of Drayton Hall was probably aware of it. (See figures 31 and 32.) The last example is Stratford Hall, Westmoreland County, Virginia, c. 1725-30. It is a grand brick structure based on

⁵⁵Reiff, 269.

⁵⁶Lane, *Architecture: South Carolina*, 23.

⁵⁷Reiff, 277, and Azzi Visentini, plates 83 and 84.

an H-plan and consists of one principal story on a high base.⁵⁸ (See figures 33 and 34.)

Primatt's plan and the four examples cited above suggest ways in which stairs could have been provided in the ideal plan of Drayton Hall. All of these plans locate their stairs off to one or both sides of the central hall. Gibbs's plate 55 shows a formal staircase in one of the square corner spaces in addition to a smaller stair to the side of the central hall. (See figure 32.) Nichols stated that it was more characteristic of plans in the Palladian tradition to locate stairs at the side of the central space or in a corner of the building than it was to place them at the center, which is so typical of the Georgian, central entry hall, hipped roof type.⁵⁹

The present Drayton Hall has a small winder staircase to the side of the central space (See figures 6, 7, and 8.) that clearly would not have been an adequate connection between the first and second story spaces of the "original" Drayton Hall. The chimney mass on either the north or south side of the house could have been divided to provide a space large enough for two flights of stairs, as the chimneys at Stratford were divided to allow the passage of hallways. (See figure 34.) This would have resulted in an arrangement similar to Mount Airy's and, of course, that depicted in the Gibbs plan, from

⁵⁸Reiff, 284-287.

⁵⁹Whitehill, 104.

which Mount Airy's design was taken. (See figures 31 and 32.)

The author feels, however, that this was not the arrangement in the original plan for Drayton Hall for the reasons that follow:

The reader is familiar with the proposition that the work of the modifier can be distinguished from the work of the original designer by certain typical characteristics including tentativeness in the handling of compositional and decorative problems. The work of the modifier also exhibits a characteristic tendency to append elements onto the original design rather than integrate them into it; he tended to leave elements already dictated by the original design unchanged within the altered plan. This tendency has allowed vestiges of the earlier design to be discernable in the fabric of the present-day Drayton Hall.

There would, thus, be good reason to expect that a staircase in a side location would be present at Drayton Hall today, perhaps in place of the winder, if it had been a part of the original plan. There is, of course, no such stair in the present building, nor any vestigial anomaly that could be attributed to the presence of one in the original plan.

A staircase planned for one of the corner spaces of Drayton Hall, as illustrated in the Gibbs plan, could easily have been deleted from the original plan by the modifier when the central stair hall was added to the program. This deletion would have left no discernable vestige in the current

plan of Drayton Hall; the shape of the space would have remained the same. Physical evidence that such a stair was once planned may be present, however, if the construction of such a stair had been begun at the ground level before the changes in the plan were made. These considerations notwithstanding, it is doubtful that a staircase was ever planned originally for one of the corner chambers.

It is interesting to reflect on the fact that Exeter and Stratford are both essentially one story houses, albeit of considerably different sizes, which require only small stairs for access to their upper levels. The author proposes that serious consideration be given to the possibility that the original plan of Drayton Hall portrayed a one-story house on a high base like Stratford rather than the two-story house which was actually built.⁶⁰ (See figure 35.)

The raising of the "original" one-story Drayton Hall to two stories provides an immediate and direct explanation for the motivation behind the addition of a large stair hall to a plan that originally specified only a small winder stair at the side. An "original" Drayton Hall of one story would not have required the present staircases. The small winder stairs present on the north side of the existing house would have provided sufficient access to the seldom used space above.

⁶⁰Tom McGimsey, Assistant Historical Architect at Independence National Historical Park, Philadelphia, first suggested this possibility to the author as a reflection of the well known Barbadian social connections of many of the early settlers of South Carolina, the Draytons among them.

Indeed, the same winder stair is the only means of gaining access to the present attic of Drayton Hall.

A one-story Drayton Hall also provides a plausible explanation for the observation that the only set of Ionic column parts currently at Drayton Hall is in use on the second level of the west portico. By the time the builders had realized that the one-story Drayton Hall would actually rise to two, they would also have realized that the eastern portico would be abandoned in favor of a central stair hall, which would rise in its place. Since only one set of columns for a second story portico would have been required after this change in the plans, it may be that only one was ordered.

Confronting the idea of a one-story Drayton Hall, one might at first lament the loss of the present hierarchy of decorative motives in its principal spaces: Doric in the first floor great hall, Ionic in the southeast drawing room, and Corinthian in the second floor great hall. But isn't the thought of a Corinthian drawing room flanking the great hall on the northeast and in balance with the Ionic drawing room on the southeast just as pleasing an arrangement, if not more so? The present northeast corner chamber on the first floor is plain-panelled without an applied classical order.

Returning briefly to the subject of the H-plan tradition (archetype may be a better word) and the relationship of the original plan of Drayton Hall to it, it is appropriate to think of the original plan and also the plan of Mount Airy

as special manifestations of the H-plan archetype. In the functional arrangement of their interior spaces they are unequivocally H-plan houses, but their H-plan character is concealed by a Palladian enclosure that fills the H-plan's recesses with elements which functionally remain outside the perimeter of the interior living spaces, but have a quasi-interior character in the sense of the building's plan. Many of Palladio's villas have portico recesses that are functionally exterior, but which appear to be contained within the body of the house when viewed from the exterior. Palladio's plans share with the H-plan archetype the tendency to identify dominant central spaces, but they cluster numerous smaller spaces around the main space or spaces in arrangements which are much more complex than the archetypical H-plan. Mount Airy and Drayton Hall simultaneously embody the H-plan tradition and Palladian principles of spatial organization. If their porticos are considered to be spaces within the perimeters of the two buildings, the Palladian character in the arrangement of their plans is dominant. Yet the porticos are also exterior to the envelope of the living spaces, which are arranged in the simplest type of H-plan. The examples of Mount Airy and Drayton Hall demonstrate the fundamental compatibility of the H-plan tradition with Palladian principles of design.

Despite their widely divergent sizes and forms, Exeter, Tuckahoe, Stratford, and Mount Airy are all H-plan buildings,

late manifestations of an old tradition, that, in the nature of an archetype rather than a rigid form, makes its appearance again and again in many different guises, including the original, ideal plan of Drayton Hall.

4. SUGGESTIONS FOR TESTING THE THEORY OF THE DESIGN AND CONSTRUCTION OF DRAYTON HALL

One characteristic of the modifier's work, which has been mentioned earlier and is important to the discussion here, was his tendency to add his changes onto the original design rather than integrate them into it. His modifications of the original plan seem to have been made simply and expediently. He generally left as much of the original plan intact as possible in the final realization of the house, indicating a reluctance to meddle with the elements already in the original plan, even if such meddling would have resulted in the better integration of his additions into the design. His reluctance may reflect an urgency at the time of construction to hastily expand the plan to allow idle workers to proceed. Or it might reflect a certain insecurity or lack of confidence on the part of the modifier that held him back from the actual re-design of elements already specified within the original plan. A lack of confidence of this sort would be expected in an inexperienced tradesman lacking the formal training suggested by the work of the original designer. Finally, the tacked-on appearance of the modifier's work could also represent the fact that the construction of the house had advanced far

enough along the lines of the original plan, that adjustments in the positions of window openings, etc., were no longer possible. It is difficult to determine which combination of these factors has resulted in the present appearance of Drayton Hall, and this poses potential problems for dating specific departures from the theorized original plan.

It is possible that the construction of Drayton Hall had not yet commenced before the departures were made on a conceptual basis. In this scenario the modifier could have made his changes while thinking in terms of the two-dimensional floor plan only. He would have had a set of drawings, in which the complicated relationships of walls, doors, windows, panelling, and facades were well developed, to which he could have appended additional rooms and on which he could have extended walls without subjecting his ideas to the arduous process of re-rendering the elevations. The latter process would have allowed potential problems to be anticipated and corrected.

It is as though a clever person outfitted with pattern books and a proverbially dangerous bit of knowledge made the changes to the original plan without perceiving the ultimate consequences, many of which are admittedly so innocuous that they have not apparently been noticed or addressed in all the years since Drayton Hall was built.

It seems very plausible that the modifier was not an inexperienced builder but a dilettante. If he had been a

gentleman architect, it is reasonable to be more generous in considering the final outcome of his contributions. For instance, the whole concept of the present stair hall was very novel for the colonies at the time and would have been a remarkable achievement for an architect of some experience much less a dilettante. This gentleman architect may have been John Drayton himself or a close associate.

The problem of dating the departures from the original design remains, however. If the modifier had been a dilettante, and at present this seems like a most likely hypothesis, his reluctance to tamper with the original design, lest it begin to unravel in his hands, would have allowed archaic features of the original design to persist in the final realization of the building, which otherwise would have disappeared when the departures from the original plan were made. In other words, the presence of archaic features need not indicate that the construction had been completed up to the point at which they appear before the changes were made in the plan.

Bearing the theoretical difficulty of dating departures from the original plan at Drayton Hall in mind, it is still possible to identify areas in the house where corroboratory evidence supporting the present theory might be identified.

The best sort of evidence would consist of construction features of an earlier conception of the building that could only exist if that earlier conception had been carried to some

level of completion. These features would have to be carefully distinguished from those that had merely survived in a new plan as archaic vestiges of an earlier plan.

An example of this type of feature would be scars in the brickwork of one of the corner chambers at the ground level relating to the installation of stairs in that location. This evidence, if it ever existed, would most likely be preserved in the western corner rooms, the walls of the eastern having been disrupted by the subsequent installation of cross-passages, relocation of walls, etc.

Drayton Hall's footings represent perhaps the best potential site of features relating to the initial construction of a building different from the one that currently stands. There is no visible evidence of a joint in the masonry between the fifth and sixth bays on the north and south facades that would indicate that these walls were physically extended after the construction had begun. Exceptionally talented masons could conceivably have taken great pains and been successful in concealing joints at these locations. Such extraordinary effort might not have been expended at the level of the footings, however. If this area of the building is ever exposed in an excavation, the footings should be examined for evidence that the original footings began to turn a corner at this location and that additional footings were laid in apposition to the corners in order to extend the walls.

Similarly, there might be joints in the footings on either side of the central three bays of the east facade that would indicate the original returns of the walls of the stair hall or portico platform back to the main body of the house. (See figure 36.) These locations are concealed at present on the exterior of the house by the first landings of the stairs to the entry door. The same places might someday be visualized on the interior of the ground level if the floors at the northeast corner of the southeast chamber and the southeast corner of the northeast chamber were ever opened. The presence of such joints would strongly support the theory that an earlier plan similar to the one described above had once existed.

If work had already begun on the H-plan house before it was decided to move the east walls of the house out several additional feet, and the ground floor walls had been brought up to even a minimal height, evidence in the form of irregularities or repairs in the brickwork of the north and south walls of the eastern corner chambers might signify the locations of the original east walls of these rooms, which would have been taken back down after the changes in the plan were made. (See figure 36.) Indicated by the symmetry about the north-south axis in the center space, the outside face of these walls would have stood about $9\frac{1}{2}$ feet west of the inside surface of the present east wall. Similarly, the inside face of the theoretical original east wall would have stood $11\frac{1}{4}$

feet west of the inside face of the present wall. Scars in the brickwork at these points would most likely be observed at the base of the wall, because of the uncertainty about whether these walls were ever built to any great height.⁶¹

The most significant evidence in support of the present theory would be in the form of subsurface features on both the interior and exterior of the house.

Even if work on the H-plan house had only progressed to the point of the laying of the footings, it would be unlikely that these were torn back out after the change was made in plan. If these footings are present, it should be possible to detect their presence beneath the paving of the existing floors through the use of noninvasive testing technology.

Ground-penetrating radar would be one possible modality that could be used to detect these footings without disturbing the paving of the floors. Ground-penetrating radar is an impulse radar system which employs short-duration pulses of high frequency electromagnetic energy which are radiated into the ground from an antenna. When each pulse reaches an interface between materials of differing dielectric properties, a portion of the pulse's energy is reflected back to the antenna. The apparatus records a continuous profile of subsurface conditions as the antenna is guided along the

⁶¹The author was unable to detect any such scars on his last visit to Drayton Hall, which is not to say that a more careful examination in the future might not turn up some evidence of this sort.

surface of the ground. The use of this apparatus is limited by the degree of conductivity of the soil which the energy must penetrate. High conductivity in the soil rapidly dissipates the energy, rendering the method useless. Highly conductive substrates include soils which have a high content of certain clays and those which are moist and calcarious or saline. The method performs best in dry, sandy soils.⁶² Some degree of moisture in the soil is allowable, but relative saturation of the substrate also defeats this method. The high water table on the site of Drayton Hall may undermine the potential utility of ground-penetrating radar.

The case of Drayton Hall is particularly amenable to another highly accurate means of noninvasive testing because of the fact that modern utilities have never been brought within its walls. This method, used infrequently in archeology, is called a magnetic susceptibility survey. The instrument works by creating a magnetic field. It can detect subsurface features by noting alterations in its generated magnetic field which are induced by the presence of those subsurface features, which have varying degrees of magnetic susceptibility. The fact that the magnetic susceptibility instrument generates and monitors responses to its own magnetic field severely limits its use when metal objects such as pipes or electric lines which distort the magnetic field

⁶²Donnie B. Barker and Jim Doolittle, "Ground-penetrating Radar - An Archeological Tool," *CRM* 15, no.5, 25.

are nearby. The absence of utilities in Drayton Hall make this method a potentially ideal means of detecting subsurface features on the ground level. Salinity of the substrate is not a limitation as it is with ground-penetrating radar. A magnetic susceptibility survey would be particularly effective in differentiating a brick feature, which is distinctly magnetic, from sand, which is almost always not magnetic. The survey procedure would be simple, direct, and relatively quick, probably requiring an hour or two to perform. The apparatus can be rented.⁶³

Resistivity would be one final option for the noninvasive investigation of the ground floor of Drayton Hall. This method measures the comparative resistance to the passage of an electric current through one sub-surface path versus another. The presence of conductive and non-conductive features below the surface affects the resistivity along any given path. Careful comparison of the resistivities along different paths can indicate the locations of anomalous subsurface features. An advantage in the case of Drayton Hall is that the likely locations of the subsurface features are known, greatly increasing the efficiency of the resistivity survey and allowing very focused measurements. The presence of a linear feature such as a footing should not be difficult to identify. This method would probably be most effective at

⁶³Personal communication with Bruce W. Bevan, archeologist and specialist in noninvasive methods of sub-surface detection.

Drayton Hall if thin electrodes could be inserted into the spaces between the bricks to reach the substrate, itself, although it might be possible to achieve a good electrical contact with the substrate through the use of moist sponges applied between the electrodes and the surface of the brick paving.⁶⁴

Whichever techniques are tried in the corner chambers should also be used to detect remnants of footings for the platform of the portico on the interior of the eastern door to the ground floor space, and for the parallel flights of stairs which would have fallen just outside this door. (See figure 36.)

None of this evidence will be present, of course, if the major changes in the plan of the house away from the putative original plan were made conceptually on paper before the construction began. The theory that an original, bi-axially symmetrical plan was the basis for the present plan of Drayton Hall would, in such a case, have to await the products of future scholarship to find proof of its validity.

This new story about the design and early construction history of Drayton Hall remains merely a theory, but at least some of the individual insights into the processes that created individual anomalies, visible in the physical fabric of the present house, are probably fairly accurate descriptions of past events. It is up to future scholarship

⁶⁴Personal communication with Bruce Bevan.

to demonstrate which of those events actually took place.

The author feels that the body of circumstantial evidence which supports the theory is so compelling that the theory deserves consideration whenever future investigatory work is planned at Drayton Hall, in the hope that future researchers will be sensitive to the appearance of evidence which could affirm or deny elements of the theory and lead to a deeper understanding of Drayton Hall. Regardless of the validity of the theory, the purpose of this essay will have been served if it stimulates future discussions and insights about the past of Drayton Hall.

One of the potential dividends of a serious consideration of this theory would be the discovery, in a collection or archive, of plans of some unidentified house, believed lost or never built, that could be linked to Drayton Hall. This is not too outlandish a hope. Such plans and their associated elevations, particularly if they had specified the construction of a one-story building, would look sufficiently different from the plans and elevations of the actual building, that they could conceivably have gone unrecognized as the original plans and elevations for Drayton Hall.

Lastly, some might feel that the theory embodied in this thesis, which seems to focus on Drayton Hall's imperfections, somehow diminishes our estimations of it. That is not the case. Drayton Hall is an extraordinary building and will always remain an extraordinary building, despite the fact that

it is flawed in many ways. Those flaws and the complicated story which they seem to tell us about the original design and construction of Drayton Hall, make it an even more extraordinary and interesting building.

It has been the intent of this thesis to approach the subject of the design of Drayton Hall, not from the side of blind worship, of which there has been perhaps too much, but rather from the desire to maintain a clear vision of what the physical realities of Drayton Hall could reveal about the nature of its past. Such a rare survivor deserves nothing less.

ILLUSTRATIONS



Figure 1. View of the west facade of Drayton Hall (Lane,
Architecture: South Carolina)

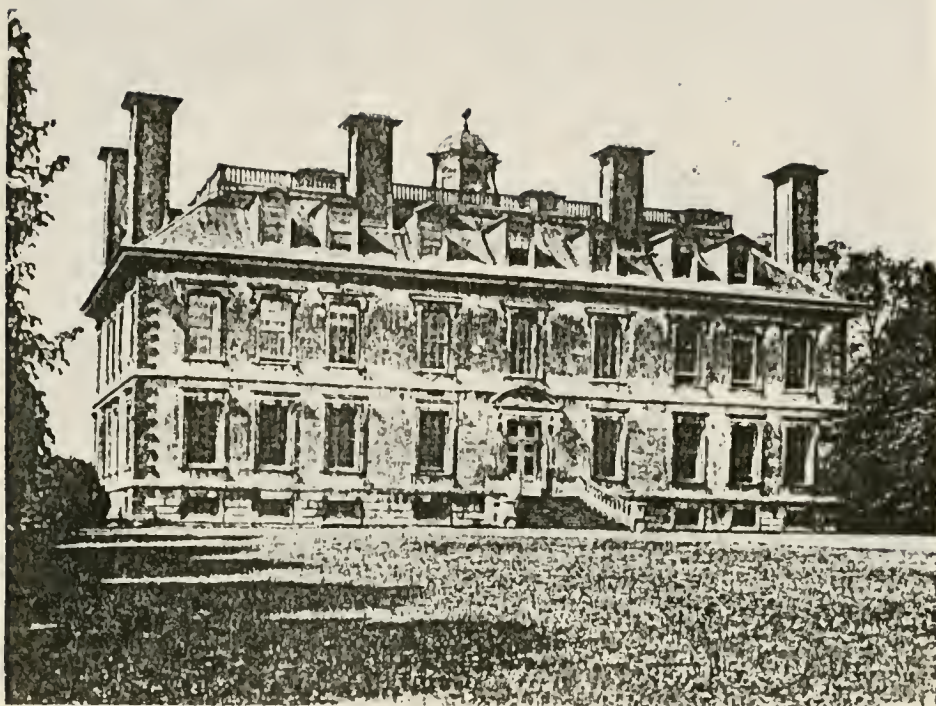


Figure 2. Coleshill, Berkshire, 1649-62, Roger Pratt
(Summerson)



Figure 3. Stair hall at Coleshill (Summerson)

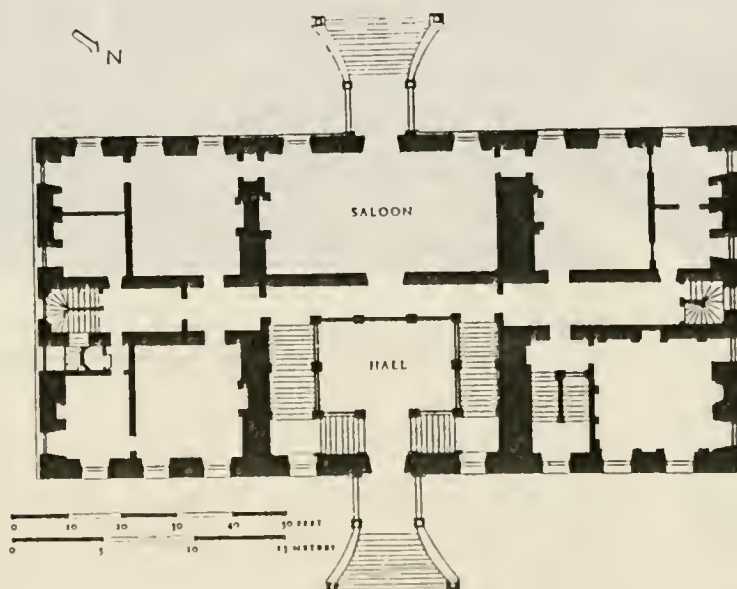


Figure 4. Plan of Coleshill (Summerson in Reiff)



Figure 5. Stair hall at Drayton Hall (Lane,
Architecture: South Carolina)

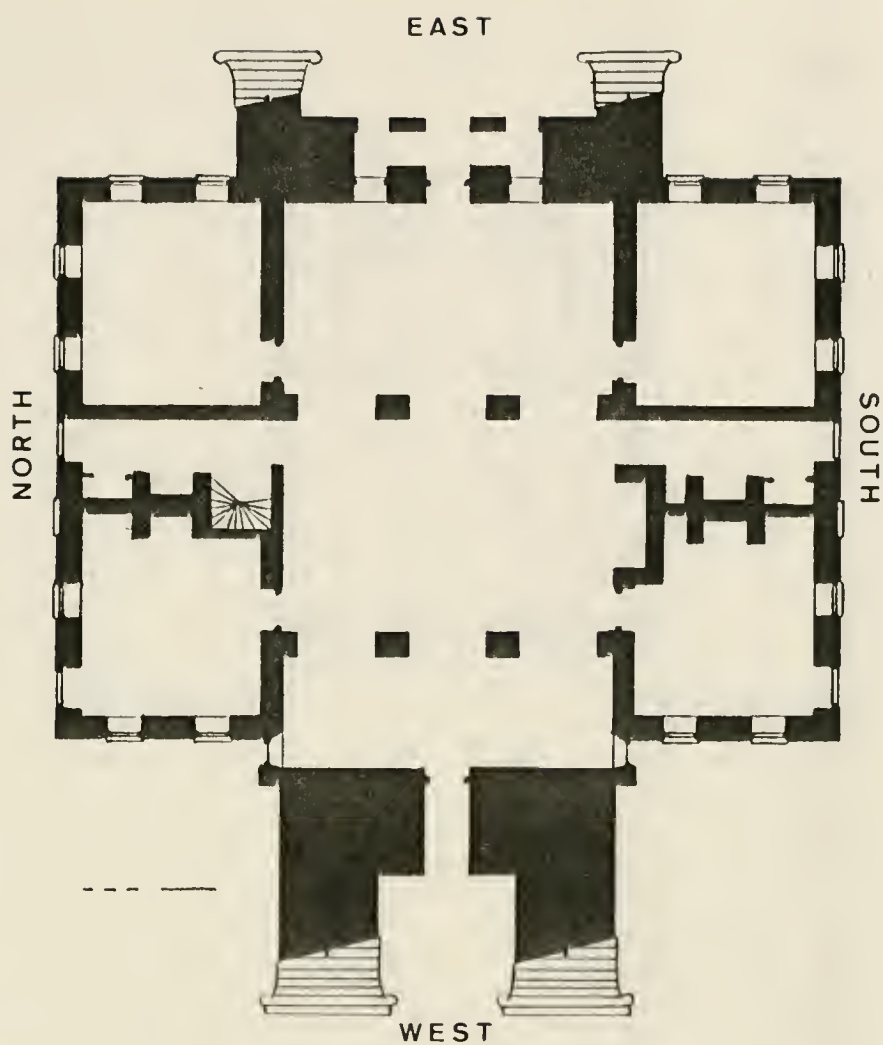


Figure 6. Plan of existing ground floor, Drayton Hall
(RGF after HABS)

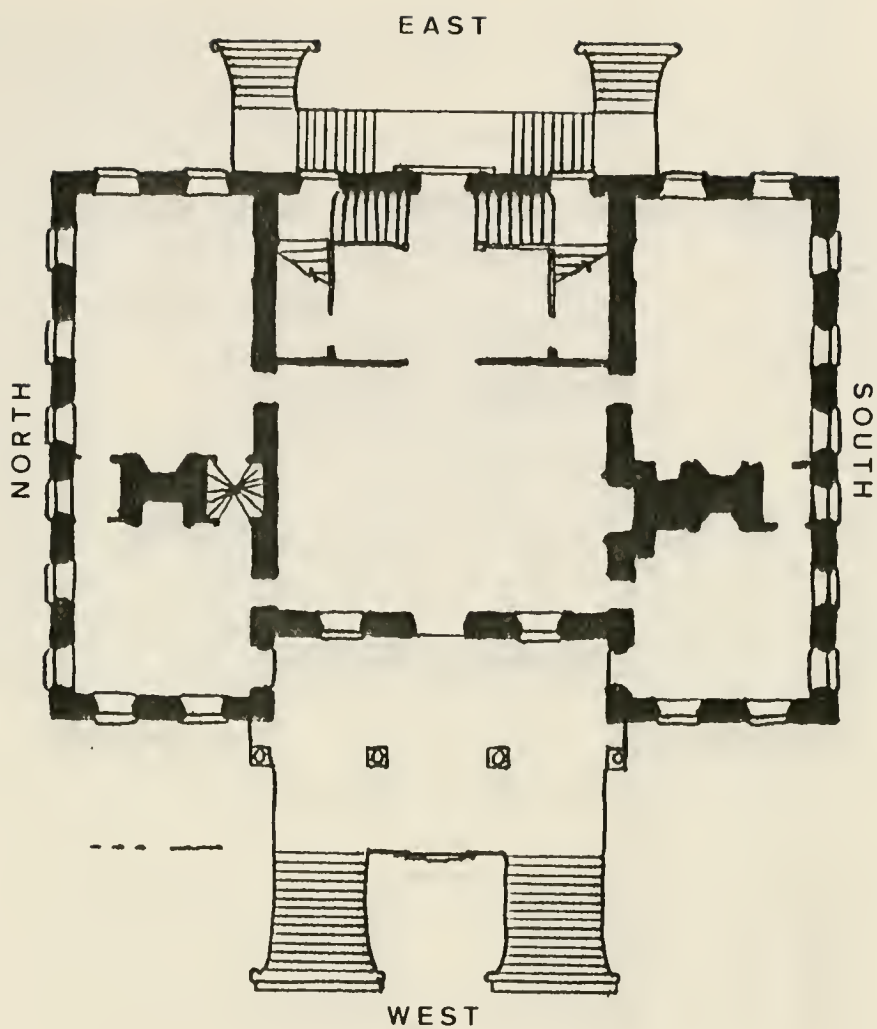


Figure 7. Plan of existing first floor, Drayton Hall
(RGF after HABS)

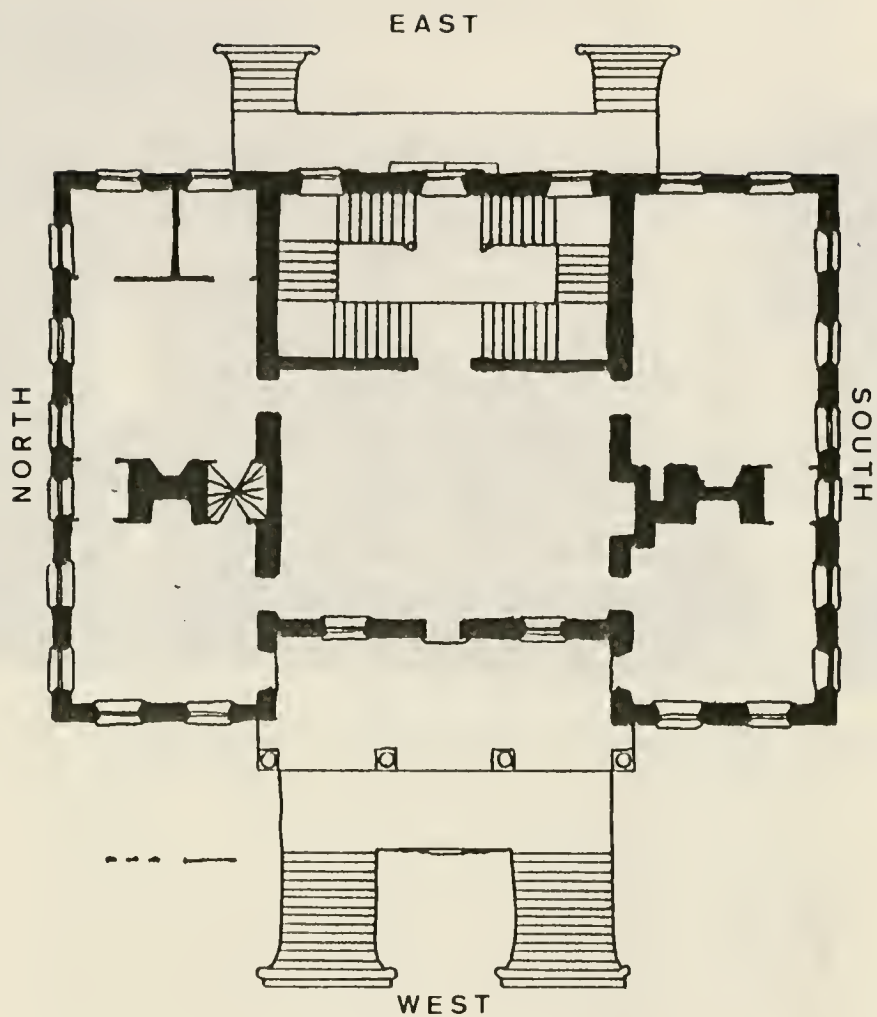


Figure 8. Plan of existing second floor, Drayton Hall
(RGF after HABS)

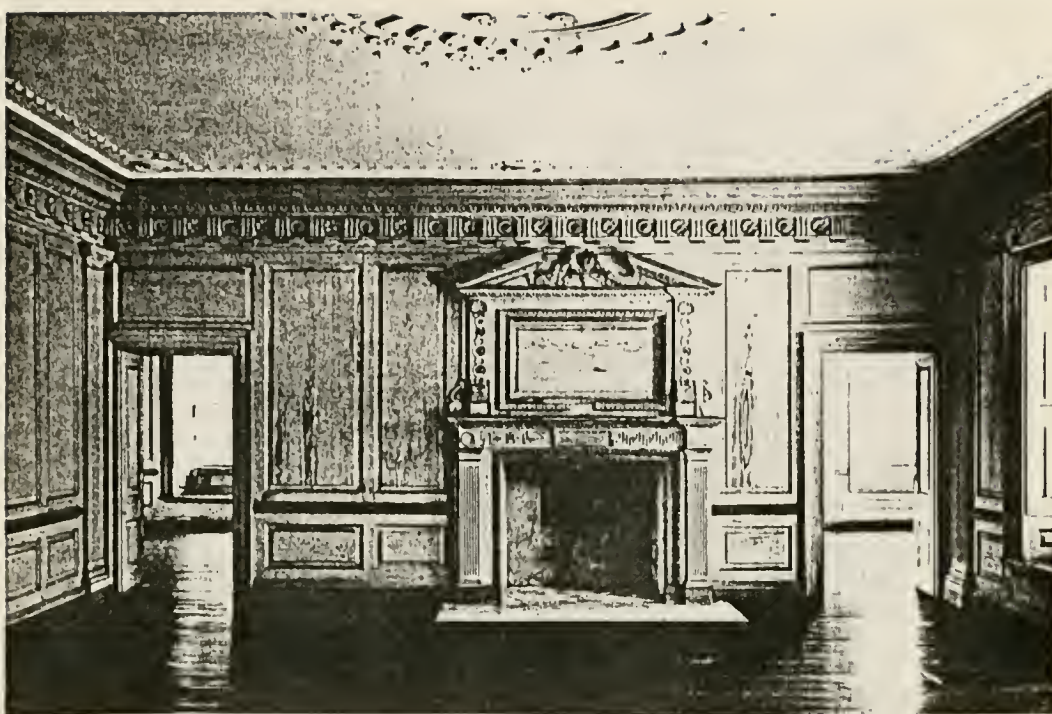


Figure 9. South wall of first-floor great hall, Drayton Hall (Lane, *Architecture: South Carolina*)



Figure 10. Cornice at the southeast corner of the first floor great hall, Drayton Hall (Chase and Murphy)



Figure 11. Existing south facade, Drayton Hall (RGF after HABS)



Figure 12. South facade, Drayton Hall, positions of windows in third bay adjusted to reflect conjectured original plan (RGF after HABS)

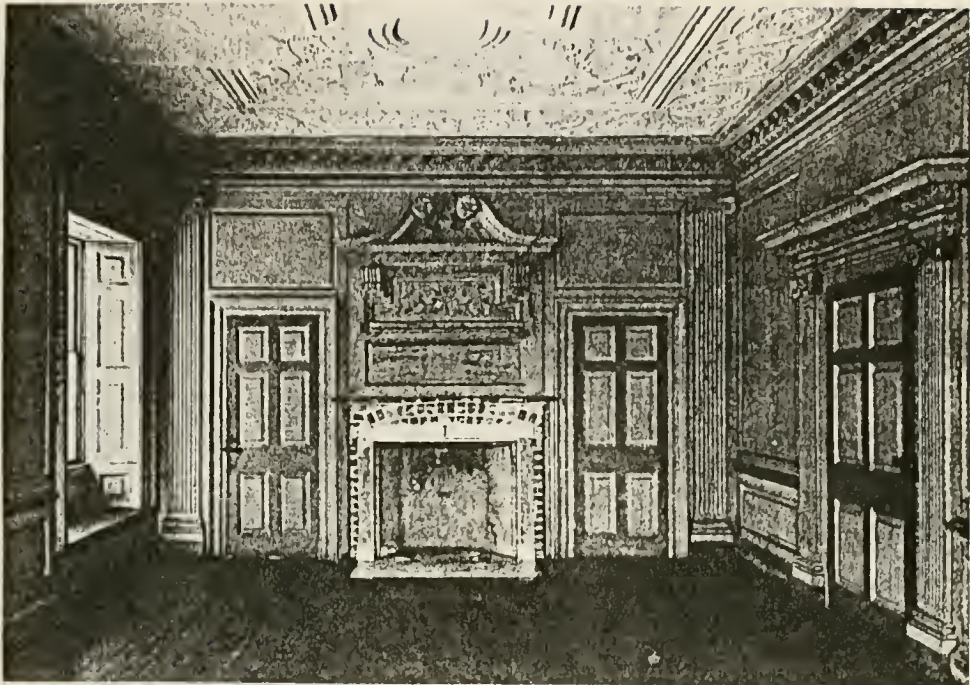


Figure 13. West wall of Ionic drawing room, Drayton Hall
(Lane, *Architecture, South Carolina*)

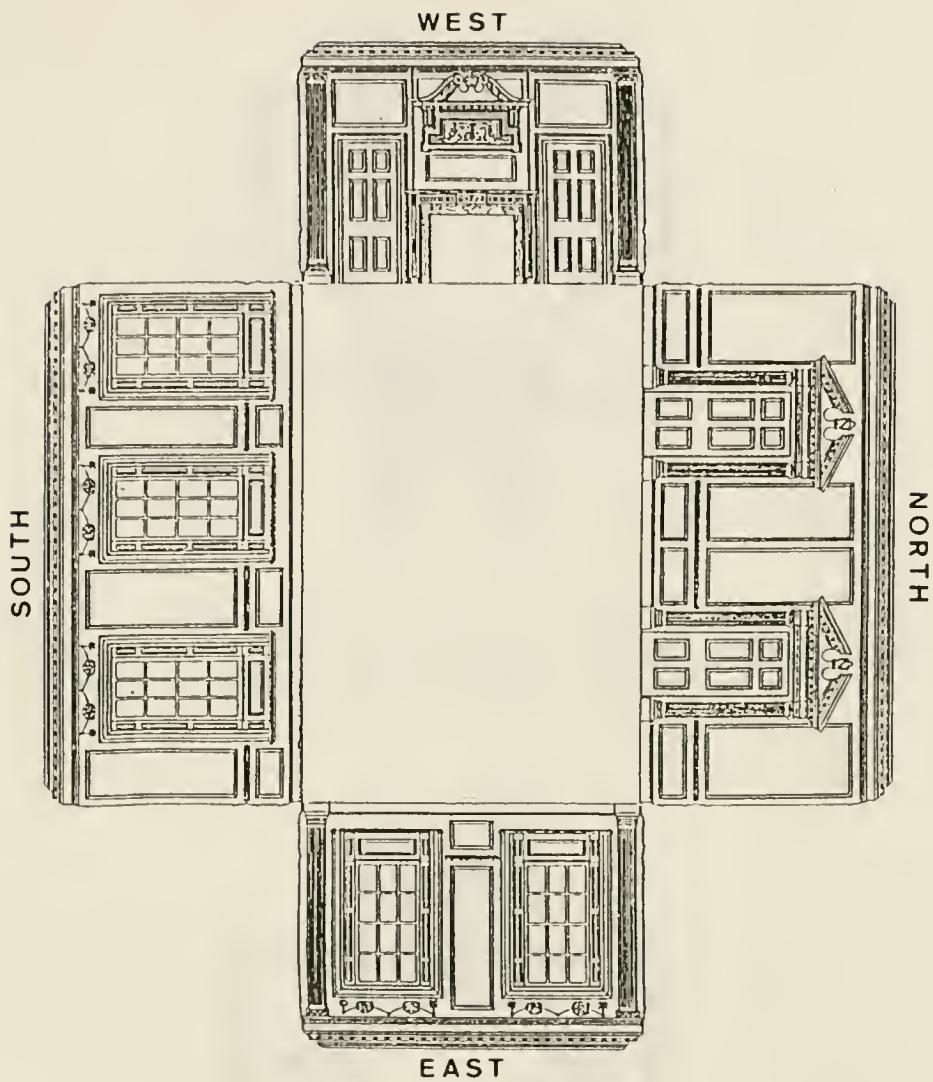


Figure 14. Wall elevations, Ionic drawing room, Drayton Hall (RGF after drawings by Seel in Stoney)

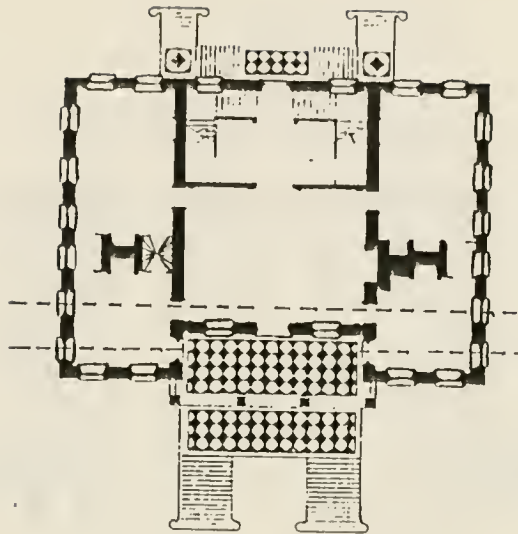


Figure 15. First floor plan of Drayton Hall, as built (RGF after Chase and Murphy). Note correspondence of wall openings on the portico side.

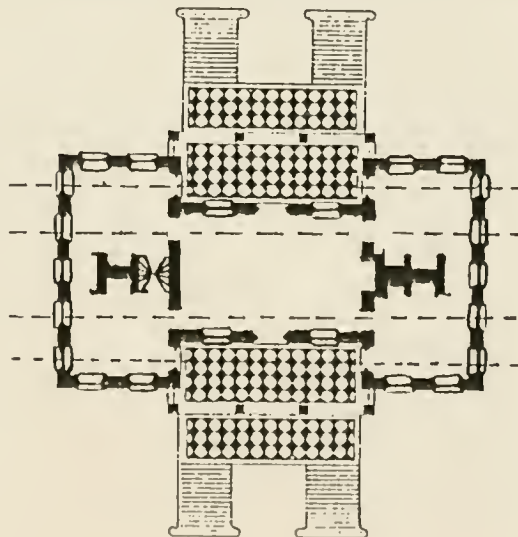


Figure 16. Conjectured original first floor plan of Drayton Hall (RGF after Chase and Murphy)



Figure 17. South facade of Drayton Hall, adjusted to reflect conjectured original plan (RGF after HABS)

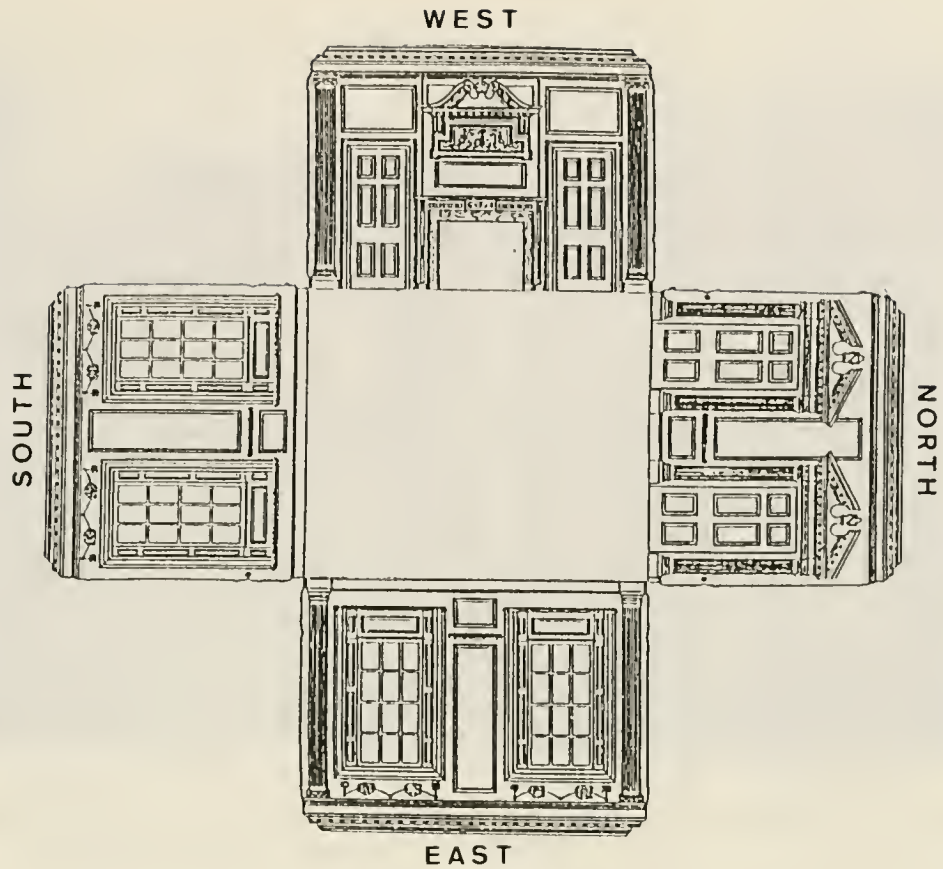


Figure 18. Wall elevations, Ionic drawing room, Drayton Hall, adjusted to reflect the conjectured original plan (RGF after drawings by Seel in Stoney)



Figure 19. East facade of Drayton Hall (Lane,
Architecture: South Carolina)



Figure 20. William Gibbes House, Charleston, 1772-79
(Lane, *Architecture: South Carolina*)

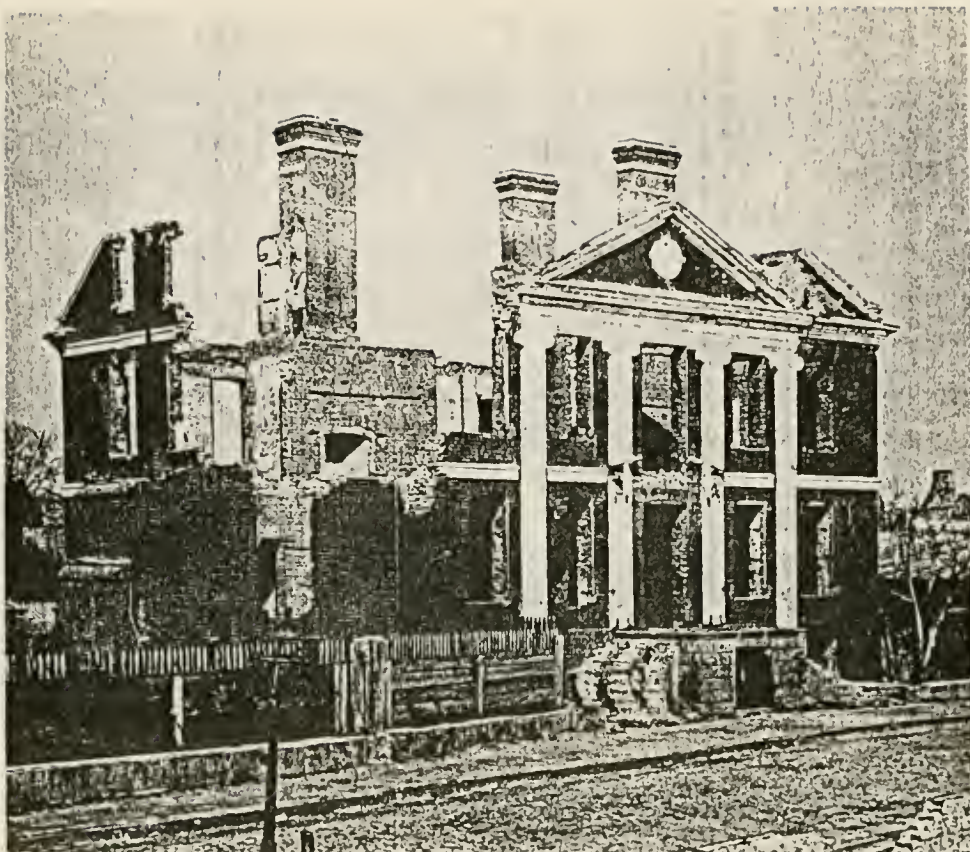


Figure 21. Charles Pinckney House, Charleston, 1746-48
(Lane, *Architecture: South Carolina*)

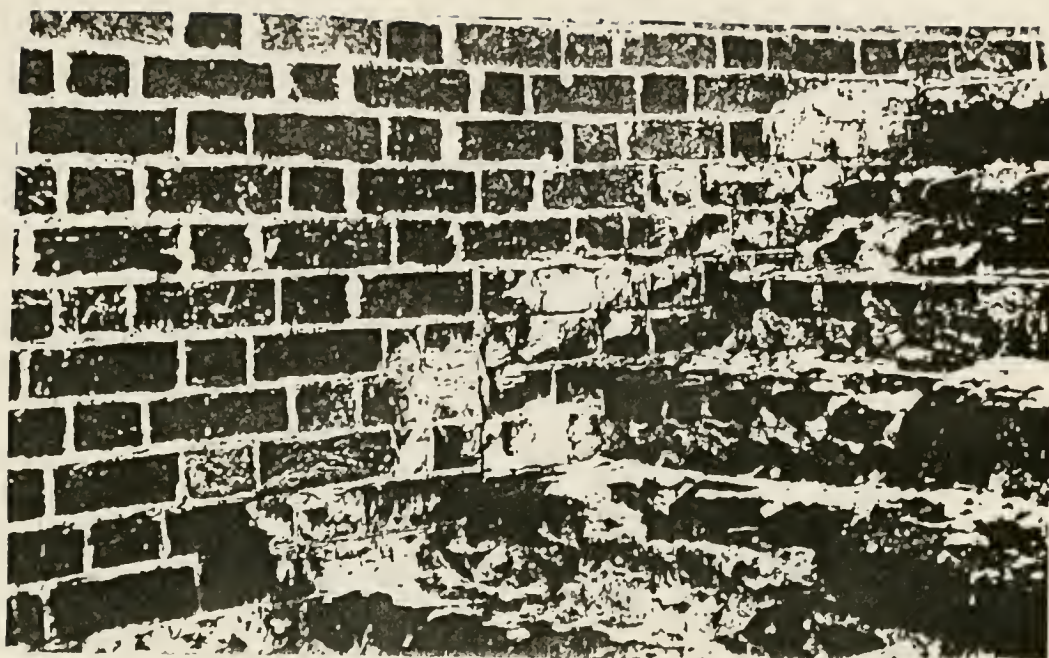
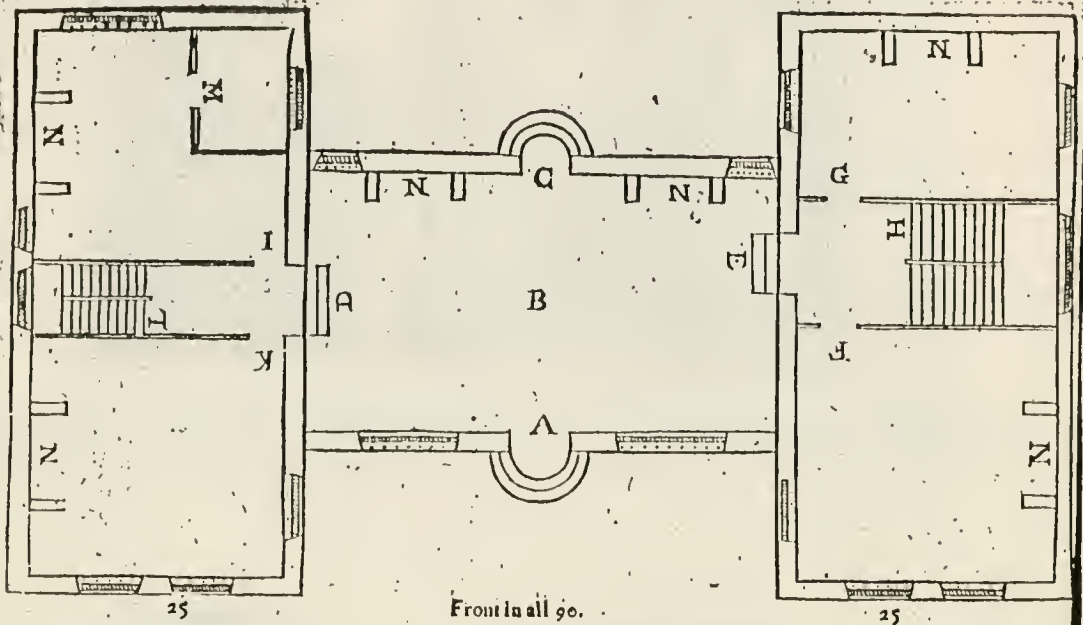


Figure 22. Detail of south stairs to first floor entry door, east facade of Drayton Hall, stone treads removed (Dean Korpan). Note outline of former window opening closed with brick.



Figure 23. South facade of Drayton Hall, adjusted to reflect conjectured original plan, with cupola and balustrade (RGF after HABS)

A Platform for a Mansion House.



- A The Passage into the Hall.
- B The Hall.
- C The Passage into the Garden.
- D and E Steps entring into the Parlors and Kitchen.
- F The Great Parlor.
- G The Little Parlor.
- H The Great Pair of Stairs leading up to

- the Dining-room over the Hall.
- I The Kitchen.
- K A Place for a Brew-house, Wash-house; or the like.
- L The back Pair of Stairs.
- M A Pastery, or Larder.
- N The Chimneys.

Figure 24. "A Platform for a Mansion House," published by Stephen Primatt in *The City and Country Purchaser and Builder*, 1667 (Primatt)



Figure 25. View of Tuckahoe, Goochland County, Virginia, c. 1712, enlarged c. 1735 (Reiff)

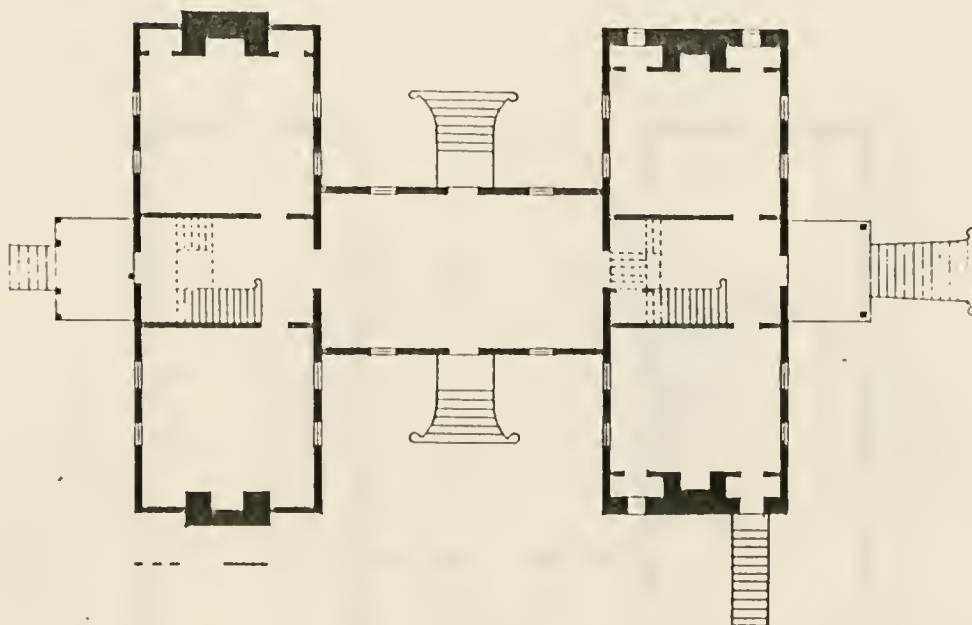


Figure 26. Plan of Tuckahoe (Waterman in Reiff)



Figure 27. Exeter, Moncks Corner, South Carolina, c. 1712 (Lane, *Architecture: South Carolina*)

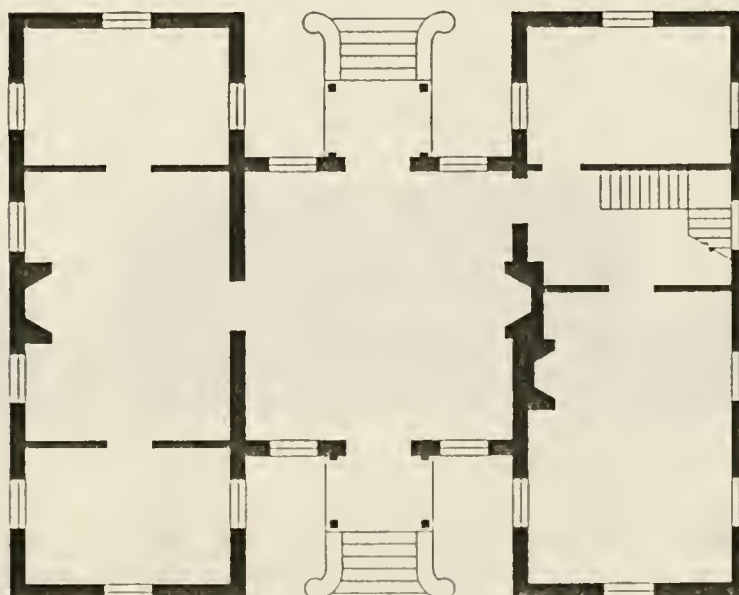


Figure 28. Plan of Exeter (Lane, *Architecture: South Carolina*)



Figure 29. Facade of Mount Airy, Richmond County, Virginia, 1758 (Azzi Visentini)

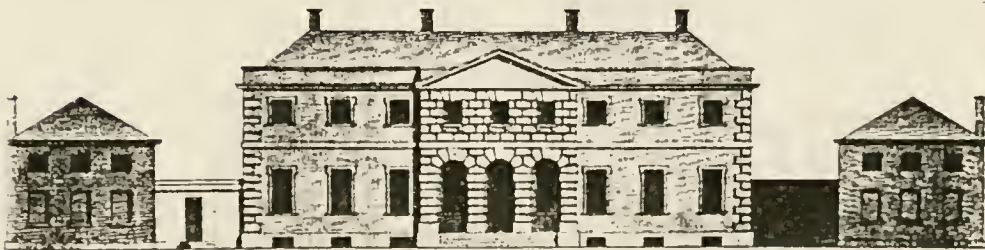


Figure 30. Plate 58 from Gibbs, *Book of Architecture*, London, 1728 (Azzi Visentini)

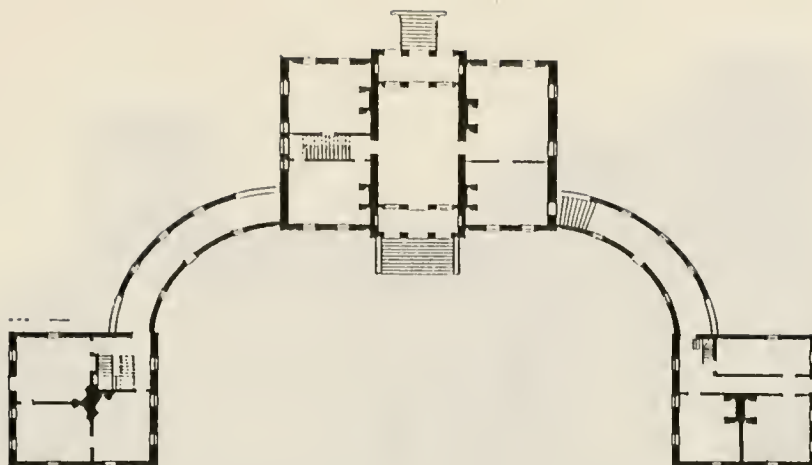


Figure 31. - Plan of Mount Airy (Azzi Visentini)

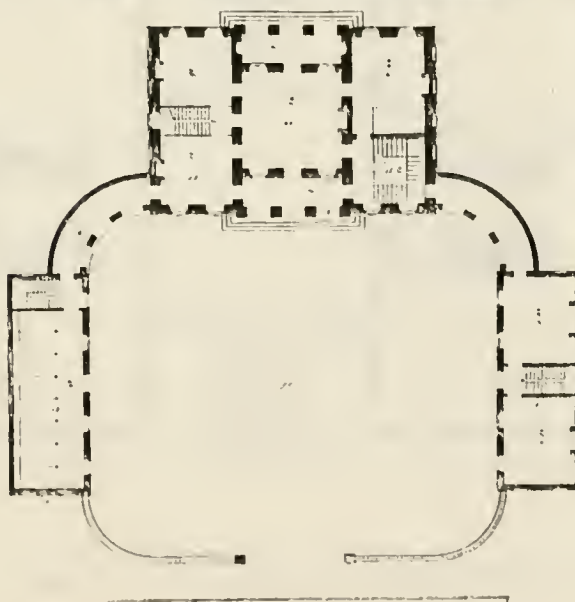


Figure 32. Plate 55 from Gibbs, *Book of Architecture*, London, 1728 (Azzi Visentini)

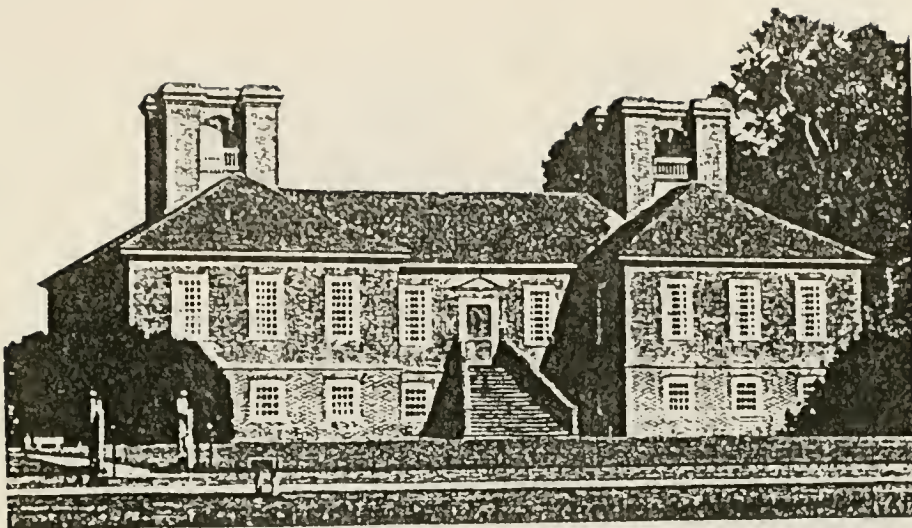


Figure 33. Stratford, Westmoreland County, Virginia,
c. 1725-1730 (Whiffen and Koeper)

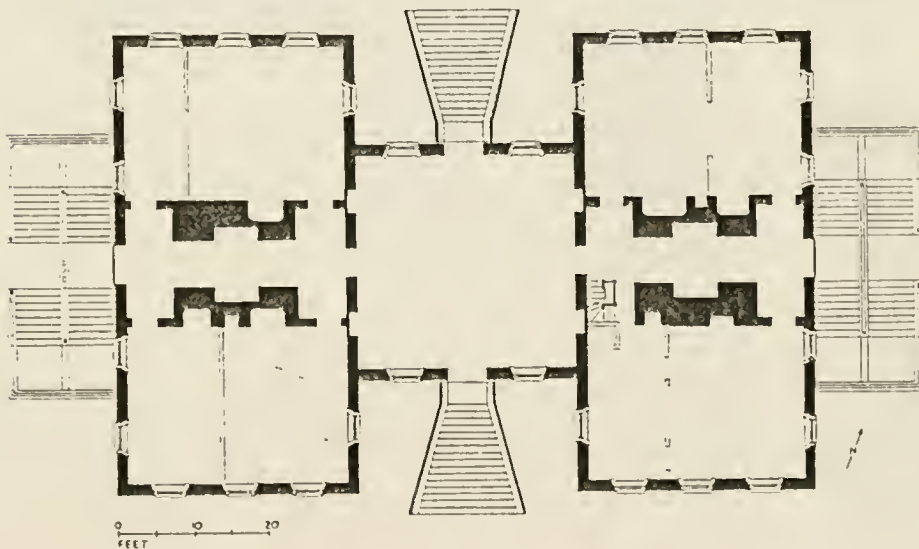


Figure 34. Plan of Stratford (Whiffen and Koeper)

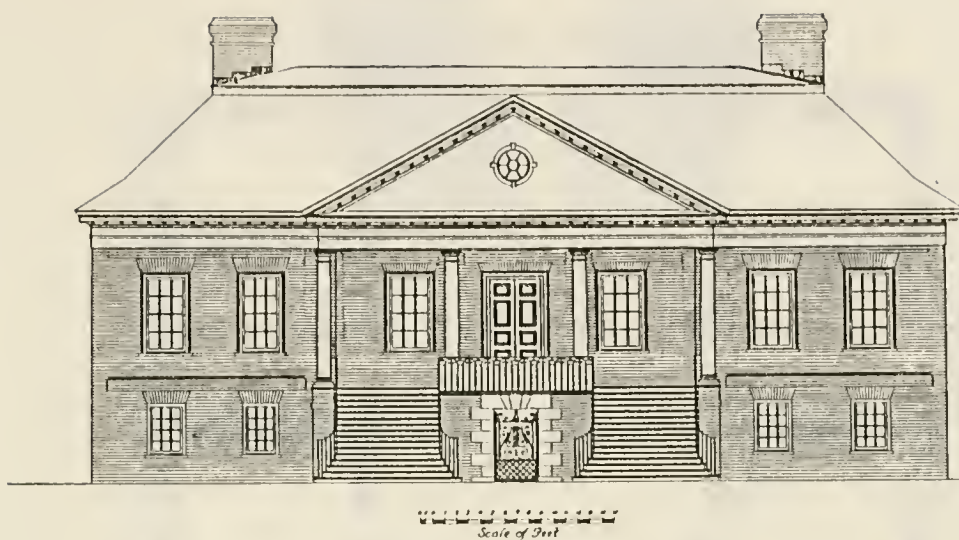


Figure 35. Conjectured west facade of Drayton Hall as a one-story building (RGF after drawings by Thomas and Seel in Stoney)

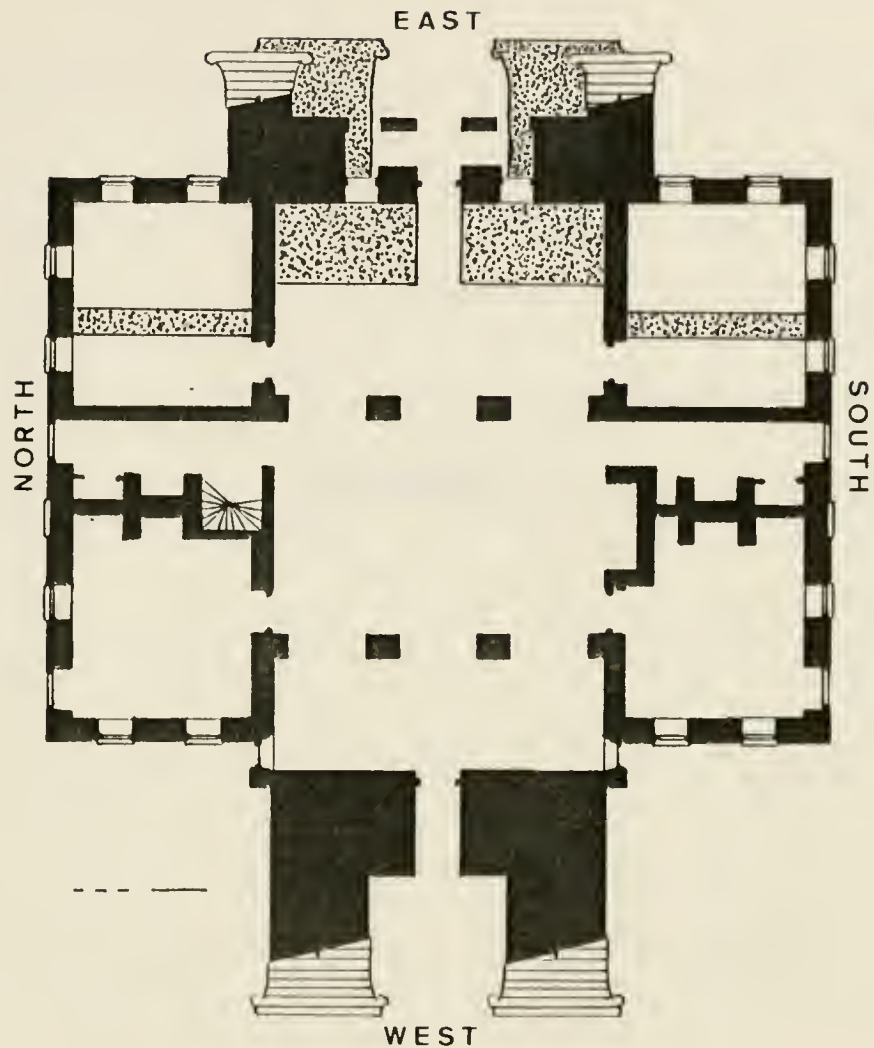


Figure 36. Plan of existing ground floor, Drayton Hall. Shaded areas denote the configuration of possible subsurface features which could be detected by noninvasive testing methods. (RGF after HABS)

BIBLIOGRAPHY

Abrahamsen, N. and N. Breiner. Magnetic Investigation of a Mediaeval Tile Kiln near Kalo, Denmark. In *Archaeometry '90*, ed. Ernst Pernicka and Günther A. Wagner, 657-666. Basel: Birkhäuser Verlag, 1991.

Andrews, Wayne. *Architecture, Ambition, and Americans*. New York: Harper Brothers, 1947.

Azzi Visentini, Margherita. *Il Palladianesimo in America e l'architettura della villa*. Milan: Edizioni il Polifilo, 1976.

Barker, Donnie B. and Jim Doolittle. "Ground-penetrating Radar - An Archeological Tool." *CRM* 15, no. 5 (1992): 25-28.

Bevan, Bruce. "Electromagnetics for Mapping Buried Earth Features." *Journal of Field Archaeology* 10 (1983): 47-54.

Bevan, Bruce and Jeffrey Kenyon. "Ground-penetrating Radar for Historical Archaeology." *MASCA Newsletter* 11, no. 2 (1975): 2-7.

Bevan, Bruce, David G. Orr, and Brooke S. Blades. "The Discovery of the Taylor House at the Petersburg National Battlefield." *Historical Archaeology* 18 (1984): 64-74.

Borkowski, W. Results of Subsurface Radar Geophysical Studies of the Krzemionki Bander Flint Mines, Poland. In *Archaeometry '90*, ed. Ernst Pernicka and Günther A. Wagner, 687-696. Basel: Birkhäuser Verlag, 1991.

Burchard, John and Albert Bush Brown. *The Architecture of America: a Social and Cultural History*. Boston: Little, Brown, and Co., 1961.

Campbell, Colen. *Vitruvius Britannicus; or, The British Architect*. London: 1715.

Chase, Charles and Kevin Murphy. *Drayton Hall: Architectural and Documentary Research Report*, rev. 5 December 1988. Unpublished. Prepared for the National Trust for Historic Preservation, 1977.

Farber, Joseph C. and Henry Hope Reed. *Palladio's Architecture and its Influence: A Photographic Guide*. New York: Dover Publications, 1980.

Frohlich, Bruno and Warwick J. Lancaster. "Electromagnetic Surveying in Current Middle Eastern Archaeology: Application and Evaluation." *Geophysics* 51, no. 7 (1986): 1414-1425.

Gibbs, James. *A Book of Architecture, Containing Designs of*

Buildings and Ornaments. London: 1728.

Holberton, Paul. *Palladio's Villas: Life in the Renaissance Countryside.* London: John Murray, 1990.

Imai, Tsuneo, Toshihiko Sakayama, and Takashi Kanemori. "Use of Ground-probing Radar and Resistivity Surveys for Archaeological Investigations." *Geophysics* 52, no. 2 (1987): 137-150.

Kent, William. *Designs of Inigo Jones.* London: 1729.

Kimball, Fiske. *Domestic Architecture of the American Colonies and of the Early Republic.* New York: Charles Scribner's Sons, 1922.

Lane, Mills. *Architecture of the Old South: Georgia.* Savannah, GA: Beehive Press, 1986.

Lane, Mills. *Architecture of the Old South: Maryland.* Savannah, GA: Beehive Press, 1986.

Lane, Mills. *Architecture of the Old South: North Carolina.* Savannah, GA: Beehive Press, 1985.

Lane, Mills. *Architecture of the Old South: South Carolina.* Savannah, GA: Beehive Press, 1984.

Lane, Mills. *The Architecture of the Old South: Virginia.* Savannah, GA: Beehive Press, 1984.

Larkin, David, June Sprigg, and James Johnson. *Colonial Design in the New World.* New York: Stewart, Tabori, and Chang, 1988.

Lathrop, Elise. *Historic Houses of Early America.* New York: Tudor Publishing Company, 1936.

Leckebusch, J. Geoelectric Methods and Image Processing in Archaeological Sites. In *Archaeometry '90*, ed. Ernst Pernicka and Günther A. Wagner, 739-746. Basel: Birkhäuser Verlag, 1991.

Leoni, Giacomo. *The Architecture of Andrea Palladio.* London: 1715.

Morrison, Hugh. *Early American Architecture: From the First Colonial Settlements to the National Period.* New York: Oxford University Press, 1952. Reprint. New York: Dover Publications, 1987.

Nichols, Frederick D. "Drayton Hall, Plantation House of the

Drayton Family." *Antiques* 97, no. 4 (1970): 576-578.

Nichols, Frederick D. *The Early Architecture of Georgia*. Chapel Hill: University of North Carolina Press, 1957.

Palladio, Andrea. *The Four Books of Architecture*. 1738. Reprint. New York: Dover Publications, 1965.

Parrington, Michael. "Geophysical and Aerial Prospecting Techniques at Valley Forge National Historical Park, Pennsylvania." *Journal of Field Archaeology* 6 (1979): 193-201.

Pattantyus-A, M. Prospecting in Hungary. In *Archaeometry*, ed. Y. Maniatis, 395-404. Amsterdam, New York: Elsevier, 1989.

Pierson, William H., Jr. *The Colonial and Neoclassical Styles*. Vol. 1 of *American Buildings and Their Architects*. Garden City, New York: Doubleday, 1970.

Pratt, P. P. and M. K. Pratt. Prospection Employing Ground Penetrating Radar and Resistivity in the Port City of Oswego, New York. In *Archaeometry*, ed. Y. Maniatis, 405-418. Amsterdam, New York: Elsevier, 1989.

Primatt, Stephen. *The City and Country Purchaser and Builder*. London: 1667.

Ralph, E. K., F. Morrison, and D. P. O'Brien. "Archaeological Surveying Using a High-sensitivity Difference Magnetometer." *Geoexploration* 6 (1968): 109-122.

Reiff, Daniel D. *Small Georgian Houses in England and Virginia: Origins and Development through the 1750s*. Newark: University of Delaware Press. London and Toronto: Associated University Presses, 1986.

Rosenblum, Martin Jay, R. A. and Associates. *Belmont Mansion: Historic Structures Report*. Unpublished. Prepared for the Fairmount Park Commission, Philadelphia, PA, 1992.

Roth, Leland. *A Concise History of American Architecture*. New York: Harper and Row, 1979.

Salmon, William. *Palladio Londinensis; or, The London Art of Building*, 2nd ed. London: 1738.

Scollar, I. "Electromagnetic Prospecting Methods in Archaeology." *Archaeometry* 5 (1962): 146-153.

Smith, G.E. Kidder in association with the Museum of Modern

Art, New York. *The Architecture of the United States*, vol. 2. Garden City, New York: Anchor Books, 1981.

Stoney, Samuel Gaillard. *Plantations of the Carolina Low Country*. Charleston, South Carolina: Carolina Art Association, 1977. Reprint. New York: Dover Publications, 1989.

Summerson, John. *Architecture in Britain, 1530-1830*. Harmondsworth, Middlesex, England and New York: Penguin Books, sixth revised edition, 1977.

Tavernor, Robert. *Palladio and Palladianism*. London: Thames and Hudson, 1991.

Telford, W. M., L. P. Geldart, R. E. Sheriff, and D. A. Keys. *Applied Geophysics*. Cambridge, England: Cambridge University Press, 1976.

Tite, M. S. and C. Mullins. "Electromagnetic Prospecting on Archaeological Sites Using a Soil Conductivity Meter." *Archaeometry* 12 (1970): 97-104.

Vaughan, C. J. "Ground-penetrating Radar Surveys Used in Archaeological Investigations." *Geophysics* 51, no. 3 (1986): 595-604.

Vickers, Roger S. and Lambert T. Dolphin. "A Communication on an Archaeological Radar Experiment at Chaco Canyon, New Mexico" *MASCA Newsletter* 11, no. 1 (1975).

Ware, William R. *The American Vignola*. New York: W. W. Norton and Company, 1977.

Waterman, Thomas Tileston. *Domestic Colonial Architecture of Tidewater Virginia*. 1932. Reprint. New York: Dover Publications, 1969.

Whitehill, Walter Muir. *Palladio in America*. Milan: Electa Editrice, 1976.

Wittkower, Rudolf. *Palladio and Palladianism*. New York: George Braziller, 1974.

Anne & Jerome Fisher
FINE ARTS LIBRARY
University of Pennsylvania

Please return this book as soon as you have finished with
it. It must be returned by the latest date stamped below.



FISHER
FINE ARTS LIBRARY

JAN 30 1996

UNIV. OF PENNA.

3 1198 04977 3067



N/1198/04977/3067X

3 1198 04977 3067



N/1198/04977/3067X